

Complete

The CHEMIST AND DRUGGIST

RETAILER — WHOLESALER — MANUFACTURER

SEPTEMBER 9, 1950

DISPLAY and RECOMMEND



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brand

ephredrine cough syrup

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MONSANTO CHEMICALS LIMITED · VICTORIA STATION HOUSE · LONDON, S.W.

The CHEMIST AND DRUGGIST



for RETAILER—WHOLESALE—MANUFACTURER

SEPTEMBER 9, 1950

Published weekly at 28 Essex Street, Strand, London, W.C.2

Telephone: Central 6565 (10 lines). Telegrams: "Chemicus, Estrand, London."

Single copies 1/- each. Annual subscription, which includes *The Chemist and Druggist Diary and Year Book*, 3/-

NEWS OF THE WEEK

Exchange of Blue National Insurance Cards.— Blue National Insurance cards finish on September 3. Employers and insured persons holding blue cards should exchange them for new ones at a local National Insurance office.

National Physical Laboratory Report.— The report for 1948 of the National Physical Laboratory published recently by H. M. Stationery Office (price 1s. 9d.) reports general progress on the items of the Laboratory's research programme. The physics division devoted considerable effort to the examination of audiometers for the National Health Service. The data obtained provides the required basis for the calibration of the audiometers and enables the threshold to be expressed in terms of the minimum audible pressure in the ear canal. The laboratory staff at the end of the year numbered 1061; scientific staff, 165 and experimental staff, 287.

Second Medical Practices Report.— The Medical Practices Committee for England and Wales, at the end of the second year of operation of the National Health Service, has presented to the Minister of Health a further report upon those aspects of General Medical Services which are the concern of the Committee. Of the distribution of general practitioners the report states: "The total number of principals among general practitioners admitted to the medical lists during the year was 1,242 as against 912 withdrawals." Last year the Committee noted the trend towards the adjustment in the location of general practitioners to that more suited to the needs of the public had continued. In areas where the patient-doctor ratio was high, for example, the number of resident practitioners on the lists of the Executive Councils concerned had increased by 4.7 per cent.; and where the converse, there had been a decrease of resident practitioners of 7.4 per cent.

Derationing of Soap.— In accordance with the decision to end soap rationing on September 10, the Ministry of Food has made the Soap Order, 1950 which replaces with amendments the Soap (Licensing of Manufacturers and Rationing) Order, 1950 and the Soap (Maximum Retail Prices) Order, 1947 as amended. From that date soap is freed from all rationing restrictions and licences are no longer required for the manufacture of dental soap (dentifrice), liquid soap, paste soap, shampoo powder, shaving soap, soft soap or any soap containing not more than 6 per cent. of anhydrous soap. Licences will still be needed for the manufacture of all other types of soap and new licences are being issued to replace the existing ones. Any soap maker who is manufacturing a soap for which a licence is required and who does not receive a new licence by September 12, should apply to the Ministry of Food, Oils and Fats Division, London Road, Stanmore, Middlesex. There are no changes in the present maximum retail prices of hard soap or flakes and the prices of toilet soap continue to be controlled by the Board of Trade under the Prices of Goods Act.

LOCAL NEWS

Glasgow Pharmaceutical Committee.— The following candidates were successful at the recent election of the Glasgow Pharmaceutical Committee: Messrs. G. M. C. Stewart, R. F. Mackay, A. Murray, Andrew Officer, G. Adam, W. C. Carmichael, J. D. Mair, D. M. Dick, D. R. Brodie, S. M. Hart, A. S. G. Bannerman, P. Ferguson, J. M. Williams, F. Baillie, Messrs. C. Campbell and F. Wassell (co-operative representatives), Messrs. R. A. Couper and R. F. Grant (company representatives), Messrs. T. Morrison (hospital representative), and O. G. Sutherland (employee representative).

Western London Pharmacists Memorial.— A portrait of the late Mr. A. R. Melhuish was recently presented to Mrs. E. Melhuish by Mr. R. Woolby Brooke on behalf of the Western (London) Pharmacists' Association and other pharmacists who had subscribed to the fund. The portrait will remain in the possession of Mrs. Melhuish for a few weeks before being presented to the Pharmaceutical Society, who will hang it in the Council Chamber.

Long Service Rewarded.— The directors and staff of The British Drug Houses, Ltd. entertained the company's pensioners to an "open day" at the company's offices and works in London on August 25. Over fifty pensioners attended. Their aggregate service with the company exceeded 2,200 years. One pensioner had over sixty years' service to his credit when he retired in 1946.— Gold wristlet watches were presented to two employees of Thompson & Capper Wholesale, Ltd., Liverpool by Alderman Edwin Thompson, J.P., (governing director of the company) in appreciation of their thirty-five years' service with the company.

Pharmaceutical Committees' Reports.— Annual reports of local Pharmaceutical Committees for the period ending June 30 show that in the County Borough of Huddersfield the number of prescriptions dispensed was 718,794, and the amount paid to chemists £102,505 (representing four months' total payments and eight months' initial payments). In the County of Surrey the number of pharmacies on the pharmaceutical list of the Executive Council remained at 440. The Committee regretted that there is no reduction in the arrears of work accumulating at the pricing bureau, in fact the interval between dispensing and pricing of prescriptions continues to increase; dispensing statisticians are, therefore, not available for the current year. In Middlesex there appears to have been a further increase in the number of prescriptions dispensed, but the long delay between dispensing and settlement of accounts has prevented accurate figures being given. Figures relative to the first quarter only, include the following: Prescriptions dispensed, 2,348,831; total prescription cost, £392,206; average cost per person, 39.9d.

IRISH NEWS

Ministry's Move in N. Ireland Dispute.— A letter from the Ministry of Health and Local Government was considered at a meeting of the Pharmaceutical Negotiating Committee in Belfast on August 31 after which a statement was issued which said that no proposals had yet been made by the Ministry to meet the objections to the reduction in payments. The Ministry had, however, proposed adjustments in favour of chemists in certain payments under the scheme and have promised to make an investigation into the deficiencies of the Drug Pricing Bureau. They also indicated that they were prepared not to impose the arbitration reduction for the months of July and August, provided chemists postponed the date of their resignations from September 30 to November 1 (to correspond with the date of the resignation of Scottish chemists). The Committee, when further information has been received from the

Ministry, proposes to summon a general meeting of chemists to obtain their views. The Ministry's letter is thought to indicate that the outcome of events in Scotland is being awaited before the subject of the cut is reopened.

OVERSEAS NEWS

French India Resumes Pepper Exports.— French India is to export pepper again. Exports have begun because of a pepper glut on the local market. The French India Government stopped exports in 1943.

Aureomycin Experiments in Indo-China.— Work has begun in Viet-Nam on the first large-scale controlled experiment with aureomycin in the treatment of trachoma. If the experiment is successful the Economic Co-operation Administration mission will recommend a substantial programme of treatment as part of its plan to provide large-scale medical assistance to the northern Tonkin delta.

Scientific Film Congress.— The fourth congress of the International Scientific Film Association, which is being held in Florence, October 4-22, will, as on previous occasions, include a festival of scientific films. Specialist group meetings of the medical research film and industrial film committees will also be held. A special committee of the British Scientific Film Association has been formed to recommend films for submission to the festival and would be glad to have information as soon as possible about recent films. Those films which may be considered suitable must be viewed as quickly as possible, and producers are asked to indicate whether they will be willing to provide copies for this purpose.

Entertainment in Salesmanship.— One of the features of a "merchandising night" organised recently by the Greater Vancouver Druggists' Association was a play entitled "Mr. Bright and Mr. Blank." The title referred to rival drug stores set up on the stage. The lights switched on and off as the scene changed from one store to the other in a graphic demonstration how to sell and how not to sell. What was said is not recorded, but the caption under a picture of the demonstration reproduced in a "Western Druggist" report reads "Arthur Hannon, messenger in Blank's Drug Store, has to be roused from reading the comics by Clerk Helen Mansell when a delivery is necessary."

West German Chemical Exports.— Exports of chemicals from Western Germany in May, valued at DM. 82 millions were a post-war record, bringing the total value of chemical exports during the first five months of the current year to DM. 338.4 millions. In May, chemicals accounted for 13.4 per cent. of the total Western German exports. Exports of pharmaceutical products in May, were valued at DM. 285,000 (January-May 2,236,000); essential oils, etc. at DM. 38,000 (January-May 1,331,000); and cosmetics at DM. 549,000 (January-May 2,129,000).— Chemical trade circles in Dusseldorf have urged the speedy granting of export credits if an export target set for the year 1952-53 of \$300 millions is to be reached. Financial aid is sought for special branches of the industry, including pharmaceuticals. Export revenue during the January-May period of the current year reached a value of \$75 millions, compared with \$95 millions in the whole of 1949. If exports continue at the present rate, it is thought that a value of \$200 millions may be reached in 1950, but this will be dependent on the provision of adequate credits. So far, only the first E.R.P. issue of DM 42 millions has been made available to the German chemical industry. To this should be added financing by individual firms to the value of DM72 millions, and short term credits amounting to DM 25 millions which will have to be changed into long-term credits. This is claimed to leave credit requirements from E.R.P. or public funds of DM 277 millions, of which about 200 million will be needed this year.

DEVELOPMENTS IN SCOTTISH PAYMENTS DISPUTE

Scottish Chemists Give Notice

After a private meeting of the Scottish Pharmaceutical General Council in Edinburgh on August 30, Dr. David McCall (secretary) announced that over 1,300 private chemists out of a total of 1,492 had given a mandate to the Council to withdraw their services from the National Health Service from December 1. The mandates have been forwarded to the clerk of the Executive Councils in the twenty five areas. Dr. McCall said that he was authorised to state that although most of the co-operative societies and the large multiple firms of chemists were not withdrawing their services that did not mean that they agreed to the reduction in their remuneration.

Scottish Minister States Views on the "Cut"

Mr. Hector McNeil (Secretary of State for Scotland) gave his views about payments to chemists in Scotland in a letter sent recently to Mr. Andrew Gilzean (Member of Parliament, Central Edinburgh). An Edinburgh pharmacist had written to Mr. Gilzean protesting against the profession's treatment under the National Health Service. Mr. Gilzean forwarded the letter to Mr. McNeil for his consideration. In his reply the Minister said:

"I am surprised to read that the chemist reports his representative on the Pharmaceutical Standing Committee as saying that the Department of Health have ignored the chemists' claims, and appear to be unwilling to allow the case to go to arbitration. In point of fact, I have done my best to make it plain ever since the dispute started that I am anxious for negotiations on rates of payment to continue, and I have made it clear that the issues can go to arbitration if no agreement is reached. The sole purpose of seeking to make a cut at the present time, a cut which I have always emphasised is provisional only, is to make it possible to give retrospective effect to a final settlement. This is unfavourable to the chemists, not only if it is in their favour.

As regards the suggestion that the chemists' claims have been ignored, the position is that they intimated a claim in July 1948, but produced no arguments or evidence in support of it until May of this year, when the Department had already put forward detailed arguments for a review. The chemists' case for an increase, along with our case for a reduction, can now be dealt with together in further negotiations or by arbitration. The letter also asks about the period during which the recent amending regulations, clarifying my power to alter the rates of payment, have to lie before Parliament. Of course, as you know, periods during which Parliament is in recess do not count as part of the forty days within which a motion seeking to annul such regulations can be moved in either House. The fact that the regulations had to be made at the beginning of a recess does not in any way limit the opportunity of Parliamentary discussion in this way, although as always it is quite competent to bring the regulations into operation before the expiry of the period during which a motion of this kind can be moved."

Pharmacists' Reply

A statement issued by the Pharmaceutical General Council (Scotland) on August 31 says Mr. McNeil in his letter makes two points: that he is anxious for negotiations and arbitration, and that the chemist

produced in May of this year arguments in support of a claim made in July 1948. Prior to the N.H.S. in July 1948, the chemists repeatedly asked for the terms of their contracts, which were only allotted to them a matter of weeks before July 1948, although they repeatedly pressed for them. The chemists were dissatisfied with the terms and asked that an independent tribunal be set up to decide remuneration, as they were not disposed to enter the service until terms were agreed. The chemists agreed with the then Secretary of State to enter the Service on certain terms which included the setting up of a Whitley Council as the machinery to negotiate on remuneration. The chief grievance of the chemists is, therefore, that this machinery has been deliberately by-passed and Mr. McNeil has arbitrarily imposed upon them using his powers under Regulations which he himself promulgates. He is guilty of the very action which the Government so strongly condemns in trades unionists.

Mr. McNeil may not have been informed that an offer was made on behalf of the chemists, that, pending a decision on their claim, the Government would allow the Government to retain the 10 per cent. final payment. This offer, therefore, destroys completely the chief reason for the imposition of the cut. This is a complete answer to the attitude of officials in the Department of Health, that the chemists are going to continue negotiations in a leisurely way to secure an indefinite continuation of the present rate of payment. It is also the answer to the statement that the Government could not readily reclaim money from the chemists if an arbitration award resulted in a reduction of remuneration. It is true that, in agreement with the Secretary of State, a formal claim for an increase in remuneration was lodged in July, 1948, and that the documents supporting the claim were not presented to the Whitley Committee until May of this year. Since the inception of the Service, only four months' prescriptions out of two years, have been priced in full. The staff and accommodation necessary to ensure full payment under contract to the chemists, has not been considered by the Department of Health as "essential". It is merely a travesty of justice when payment under contract is only rated as a high priority, but not "essential". The chemists cannot help feeling that if the organisation had been necessary to collect money from them instead of paying money to the chemists, the problem would have been quickly solved. The chemists have been unable to assess what they were due to them for the supply of medicines and for their professional services, and therefore figures in support of their claim for a higher dispensing fee were not available from the Bureau, the source from which they ought to have been obtained. The chemists, in operation, had ultimately to employ at their own expense an expert statistician, who carried out a detailed survey throughout Scotland and finished his work only in May 1950. It is for these reasons that the case in support of the 1948 claim of the chemists was delayed until May of this year. During a meeting of the Whitley Committee in April an official of the Department asked when the documents in support of the chemists' claim for a higher dispensing fee would be available. He received the answer that the documents were almost ready and would be presented in two or three weeks. The Department thereupon produced memorandum PH/B/9, which substantially claimed that the number of prescriptions which the chemists had been called upon to dispense had greatly exceeded the official estimate and that consequently many chemists had been paid too much.

The Department memorandum contained no detailed arguments for a review of remuneration, neither was the cut the result of careful investigation, as stated by Miss Herbison to a deputation of chemists. The officials of the Department in fact admitted that they had made no such critical survey of the work of the chemists under N.H.S. as had been carried out by the chemists.

TRADE NOTES

Thiosemicarbazone Tablets.- Neustab brand of thiacetazone for the treatment of leprosy, etc., is issued by Boots Pure Drug Co., Ltd., Station Road, Nottingham, in tablets containing 25 mgm. Corrected note.

Bonus Offer.- Allen & Hanburys, Ltd., London, E.2., are giving a bonus offer of Acriflex antiseptic cream of thirteen to the dozen, when taken in parcels of three dozen, in return for display service.

Utrecht Fair.- Goods shown at the fifty-fifth international Utrecht Fair, September 5-14, will be more than six-tenths of non-Dutch origin. The Fair will include a large medical and pharmaceutical section.

Ampoule Sealing Apparatus.- As Britton Malcolm & Co., 38 Southwar Bridge Road, London, S.E.1, have received many encouraging reports their twin jet sealing apparatus, the company is now producing this on a larger scale.

A New Soap Box.- Jarrett, Rainsford & Laughton, Ltd., 2-5 Station Street, Birmingham, 5, have introduced a new Twinco plastic soap box available in pastel pink and blue and measuring $3\frac{1}{2}$ in. x $2\frac{1}{2}$ in. x $1\frac{1}{4}$ in. A particular feature of the box, the makers point out, is its strength.

A New Beauty Lotion.- Cosmedin Skin Beauty Lotion of which details appear on another page has been introduced by D.D.D. Co., Ltd., 3 Fleet Road, Ludgate Circus, London, E.C.4. The product which is packed in two sizes is to be advertised nationally in women's papers.

Sole Agents for Greater London.- From August 1 Allied Drug and Chemicals, Co., Robert Street, Hampstead Road, London, N.W.1., have been the sole selling agents in the greater London area for the pharmaceutical preparations of Hough, Hoeson & Co., Ltd., Manchester 19.

Supplies in North Scotland.- Wm. Davidson, Ltd., bring to the attention of readers on another page that they have been serving chemists in the North of Scotland drugs, chemicals, galenicals, and proprietary medicines for nearly a century.

Pharmaceuticals Made In Scotland.- On another page T. & H. Smith, Ltd., Blandfield Chemical Works, Edinburgh, remind readers of the principles, alkaloids, anaesthetics, etc., which they export all over the world.

Inquiries from Glasgow Invited.- W. & R. Hatrick, Ltd., 158 Renfrie Street, Glasgow, C.2., and Morrisons & Ralph, Glen Street, Barrhead, Glasgow, invite respectively, inquiries for galenicals, pharmaceutical sundries, etc., and sanitary towels and other products. Further details are given on other pages.

Purchase Tax Changes.- Ciba Laboratories, Ltd., Horsham, Sussex, announce that the following preparations will be exempt from purchase tax from September 1: Neuro Transentin and Trasentin tablets; and in dispensing packs (the only form in which they will be issued from that date), Lutocyclin, Ovocyclin, Perandren, Percorten.

Revised Prices.- Parke, Davis & Co., Staines Road, Hounslow, Middlesex, announce changes in prices from September 1 in Benylin expectorant and Cosylan. The following lines have been discontinued as the stocks are exhausted: Adrenalin Ocullets, 1/200 gr. (No. 1) Cascara Compound pills, No. 3 (C.C.P. No. 970), ferrous carbonate tablets, 5 gr. (C.C.T. No. 86), liver pills, improved (G.C.P. No. 373) bottles of 100, thyroid gland tablets, 3/5 gr. (C.T. No 594) bottles of 1,000 acetylsalicylic acid compound capsules, bottles of 25.

Tetanus Antitoxin Unitage.- All packages of tetanus antitoxin made by Evans Medical Supplies, Ltd., Speke, Liverpool, 19, are now being labelled with the new international unit, effective since July 1. The unit is equal to two of the old international units and to one American unit. For the time being to ensure that there is no confusion the potency of tetanus antitoxin (Evans) is being shown in the three unitages.

Proprietaries and Sundries Prices.- A new edition of the "B" list (proprietary articles and druggists' sundries) of Evans Medical Supplies, Ltd., Speke, Liverpool, 19, is claimed by the company to be the only up-to-date publication of its kind in the trade. The list, cloth-bound book of 250 $9\frac{1}{2}$ x 7 in. pages gives the packs and retail and per-dozen prices of a wide range of medicinal and toilet proprietaries (pp. 64), with an indication whether they are C.F., P.A.T.A., statutory poisons or subject to purchase tax. Pp. 55-212 are occupied by sundries, alphabetically arranged and indexed. The remainder of the book, on pink pages, is taken up with advertisers' announcements.

Benzene and Toluene.- Petrochemicals, Ltd., 170 Piccadilly, London, W.1, offer in their Catarex benzene a product for which is claimed a purity not usually encountered in industry. Its specification stipulates a thiophene content of less than 25 parts per million and a total sulphur content of less than 0.005 per cent. Because of its high purity, Catarex benzene, as reactant or solvent, minimizes the formation of undesirable intermediate products in the commercial synthesis of many pharmaceutical chemicals. For processes requiring benzenes of even higher purity, T.F. and reagent qualities are available. Catarex toluene is also now being produced in bulk by the company. Unlike many toluenes of petroleum origin, Catarex toluene is claimed free of di-olefines, and consequently does not deteriorate in colour when stored. A reagent grade is also being manufactured.

Sodium Propionate Preparations.- Harker Stagg, Ltd., 8 St. George Street, London, W.1, commenced marketing on September 1 a series of sodium propionate preparations under the general name Procid. They are stable preparations of sodium propionate, a virtually non-toxic and non-allergenic compound, which has recently been found to be effective against a wide range of bacteria and fungi. Procid solution, a neutral, sterile solution containing 10 per cent. sodium propionate, is intended for treatment of infections of the eye and external ear. Two ointments, prepared with water-miscible bases, are also available;- the 5 per cent. ointment is indicated for blepharitis, conjunctivitis and vaginitis, while the 15 per cent. ointment is intended for use in diseases of the skin, vulvo-anal region and external ear. The solution is issued in $\frac{1}{2}$ fl. oz. bottles with pipettes, and the ointments are issued in tubes of 1 dr. and 1 oz.

Matched Cosmetics.- Icilma, Co., Ltd., London Road, Isleworth, Middlesex have launched under the title Poem a range of matched cosmetics at a popular price. The range comprises face powder, tinted emulsion, lipstick, refills and cleansing cold cream. A "Poem Personal Colour Guide" gives full details.

PROPRIETARY ARTICLES TRADE ASSOCIATION

Alterations to Protected List (Part 1).- Wigglesworth, Ltd., Sanovis glucose with vitamin D, 21s. doz., 1 doz. 19s. 6d., 2s. 4d. (exempt).

Alterations to Protected List (Part 2).- Culmak, Ltd. Reduced prices September 1, Culmak shaving brushes, No. 40, 147s. 6d. doz., x 33 $\frac{1}{3}$ per cent., inclusive retail price 22s. 6d.; No 55, 245s. doz., x 33 $\frac{1}{3}$ per cent., i.r.p. 37s. 6d.; No. 84, 376s. 3d. doz., tax 3 $\frac{1}{3}$ per cent., i.r.p. 57s. 6d.

COMPANY NEWS

A. BOAKE ROBERTS & CO., LTD.— Net profit for the year to March 31 amounted to £337,615, before taxation, against £173,771 for the preceding year. Taxation absorbed £171,735 (£93,322). The ordinary dividend is maintained at 30 per cent.

PETROCHEMICALS, LTD.— It is proposed to raise a further £2,500,000 of new capital, towards which sum the Finance Corporation for Industry has advanced a temporary loan of £900,000. Stockholders are to be asked to approve the securing of the additional amount immediately required in priority to the £1,800,000 of 4 per cent. secured loan stock, 1954, and the £2,500,000 of 5 per cent. second secured loan stock, 1959, at present issued. Sir Robert Renwick, chairman, in a circular to stockholders says that at some later date "it may be expedient drastically to write down the ordinary share capital".

G. B. KENT & SONS, LTD.— Accounts for 1949 show a loss for the year of £13,674, (against a profit of £16,487 in the previous year), plus income tax £5,235 (tax debit £7,940). The sum of £11,732 (£8,669) is transferred from reserve for fall in stock values; to other reserves nil (£16,428); and brought in, £68,665 (£41,965), making credit available balance of £71,958 (£75,609). To preference dividends, £3,094 (same); and ordinary dividend, 93½ per cent., £3,850 (same); carried forward, £65,014. The Allure brush competition expenses during the year were £2,200.

ASPRO, LTD.— Group profit for the year to March 31 amounts to £227,522, after taxation, compared with £160,617 for the period of nine months ended March 1949. Net profit attributable to Aspro, Ltd is £221,846 (£132,720). To general reserve, £115,397 (£97,944); staff contingencies reserve, £5,000 (nil); capital reserves of overseas subsidiaries, £4,515 (£314); 5½ per cent. cumulative preference dividend, £15,125 (£11,344); interim ordinary dividend 15 per cent. £41,250 (same); proposed final ordinary dividend 20 per cent. (11½ per cent.), £55,000 (£30,937); forward, £180,332 (£194,773).

ALBRIGHT & WILSON, LTD.— In addition to an issue (see C. & D., August 26, p.270) of preference shares, it is now disclosed that the directors intend to make a capital bonus distribution to ordinary stockholders. At an extraordinary general meeting on September 12 a special resolution is to be submitted providing for the addition of a new Article which will result in about £1,100,000 of the reserves being frozen under the heading of capital equalisation reserve account. It is intended later to apply the greater part of this reserve to a capital distribution to ordinary stockholders of one new 5s. share for every 5s. ordinary unit held when the issue is made. Treasury consent for both issues has been obtained.

BIRTH

GORMLEY.— At Ferncroft Nursing Home, Hampstead, London, on August 30, Elspeth, wife of Arthur J. C. Gormley, chairman of International Chemical Co., Ltd., and John Wyeth & Bro., Ltd., London, of a son.

DEATH

BALDRY.— At a Worcester nursing home on September 1, Mr. George Edward Baldry, M.P.S., 10 Cornmarket, Worcester, aged sixty-five. Mr. Baldry had been in business in Worcester since 1920. He qualified as a chemist and druggist in 1907. Mr. Baldry took an active interest in local pharmaceutical affairs and was president of the Worcestershire and Herefordshire Branch of the Pharmaceutical Society in 1949.

RESULTS OF DRUG TRIALS ON VOLUNTEERS

ANDREW WILSON, M.D., Ph.D., F.P.S., Ph.C. (lecturer in the department of pharmacology of the University College, London), and colleagues ("British Medical Journal," 1950, II, 484-88) describe trials of drugs conducted on student volunteers during a pharmacology course at the College. Designed primarily to acquaint the medical students at first-hand with drug-action, the trials investigated the action of analgesics, gas mixtures, and drugs taken by mouth that stimulate or depress the central nervous system. The experiments were held during a pharmacology class lasting about five hours once a week. The students worked in pairs, each acting in turn as subject and observer, and each pair was supervised by a member of the College staff. To ensure freedom of selection of drugs each student was given from a hat a numbered card which indicated to the organisers only the identity and dosage of drug, etc., that he was to receive.

In the first experiment, which aimed at assessing the activity of analgesics when injected subcutaneously, the drugs chosen were morphine (in 10 and 15 mgm. doses), amidone (in 10 and 15 mgm. doses), and pethidine (in 100 and 150 mgm. doses). They were administered to six groups of 20 students, and another group, who received saline 2 mls. acted as controls.

Muscle pain caused by localised anaemia was produced in the volunteers by the following method. A sphygmomanometer cuff was placed around the upper arm of a subject lying on a couch. Muscle anaemia was produced by inflating the cuff to 160 mm. of mercury and the subject contracted the muscles by squeezing a rubber bulb. Air-pressure was thereby used to displace mercury in a U-tube, when the displacement was sufficient an electric lamp lit. Frequency of squeezing was determined by use of a metronome. Bandicaps to allow for varying strengths of subject could be arranged by means of a variable leak. The observer noted the times of onset of pain, and of "exhaustion" (inability to light the lamp in six attempts). On reaching that point the cuff was deflated and the trial made on the other arm. The process was repeated every fifteen minutes. Effects on respiration, pulse rate, and sensations described by the subjects were always recorded. The onset

of pain and exhaustion were measured in

For assessing analgesics the method was found to be limited by the fact that pain onset could not be measured if the point of exhaustion were reached first. Tests showed that the administration of the drugs (except amidone in a dose of 10 mgm.) did not affect the onset of exhaustion materially, and the drugs (with that exception) were evaluated therefore as analgesics under the conditions of the test in the following order of decreasing activity. Amidone (15 mgm.), morphine (15 mgm.); and pethidine 150. and 100 mgm. The tests did not differentiate between the analgesic properties of saline and morphine (10 mgm.). The authors point out that in choosing a drug, analgesic potency combined with minimum effect on "exhaustion" is a factor to be considered. The anomalous speeding of the onset of exhaustion by amidone 10 mgm., the author states, merits further investigation.

Nausea, vomiting or dizziness occurred more often with amidone or morphine 15 mgm. than with pethidine 100 and 150 mgm. or amidone 10 mgm.

Experiments using Gas Mixtures

In the second series of experiments—designed to show the effect of different mixtures of nitrous and oxygen (and oxygen alone) on sensory motor co-ordination, the test-task required the subjects to insert a number of ball-bearings into a tube with forceps. Efficiency was measured by the time required to complete the operation. Results showed a decrease in speed under gas equal to 11 per cent. for oxygen, 52 per cent with the 40 per cent. nitrous oxide mixture and 89 per cent. with the 50 per cent. mixture.

The third test was to examine the effect of amphetamine (15 and 25 mgm. doses), cyclobarbitone, and Seconal (sodium propylmethylcarbinyllallyl barbiturate) in the central nervous system. Tablets or capsules of lactose were used in a control group. The ball-bearing test; a tapping test using a morse key; and a test in which dots on a disc were aimed at were employed. Performance fell with cyclobarbitone and Seconal (increasingly in that order, though the results were not necessarily the true picture of the sleep-producing power of the drugs), and rose with amphetamine sulphate.

CONFERENCE PERSONALITIES

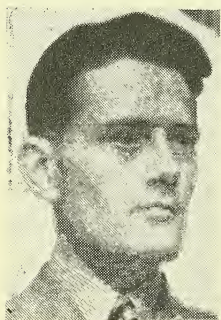
MR. S. ADAMS, Ph.C., B.Pharm., author of a paper on the assay of heparin, aged



twenty-seven, has been connected during most of his pharmaceutical career with Messrs. Boots, Nottingham. Apprenticed with Boots, Ltd., at March, Cambs, he later studied at University College, Nottingham, graduating B.Pharm. (London) and obtaining his Ph.C. diploma in 1945. In that year he was awarded

the Pharmaceutical Society's Scholarship in Pharmacology, but because of National Service was unable to use it then. He proposes to commence research under the scholarship in October 1950 in the Department of Pharmacology, Leeds Medical School. Since 1945 Mr. Adams has been engaged on penicillin production with Boots Pure Drug Co., Ltd., Nottingham, and for the past three-and-a-half years on work in the pharmacological and physiological division of the company's research department.

MR. GERALD RIGBY, Ph.C., B.Sc. (London), M.Sc. (Manchester), part author



with Professor Brindle of a paper on the assay of tinctures of digitalis is assistant lecturer in the pharmacy department of Manchester University. As a chemist and druggist student in that department, 1941-42, he won the Harry Brindle silver medal for the best performance during the session, and in the Ph.C.

course the following year won the Woolley prize for a similar reason. In 1943 he also won the Pharmaceutical Society's bronze medal. From September 1943, until he was appointed to his present post in 1947, he served as demonstrator in pharmacy in Manchester University. In

1946 he graduated externally from London University in chemistry, and contributed paper to the British Pharmaceutical Conference on the removal of pyrogen from water, etc. He gained the diploma in bacteriology of Manchester University in 1947 and graduated M.Sc. in 1950. He is thirty.

PROFESSOR ANDRE MIRIMANOFF, author of a paper on antagonism between

non-ionic detergents and antiseptics, is professor of pharmacognosy and galenical pharmacy, and director of the school of pharmacy at the University of Geneva, Switzerland. After studying chemistry at that university he qualified as a chemical engineer in 1924, and obtained his Dr. ès Sc.



degree a year later. After holding pointments as an assistant at the university and as an industrial chemist he commenced studying pharmacy at the University, 1931, qualifying in 1936. He later studied at the Sorbonne, Paris, and was given present professional appointment in 1937. Professor Mirimanoff has been a member of the Swiss Pharmacopœia commission since 1943, and in 1949 was awarded the *Médaille Moureu* of the *Faculté de Pharmacie de Paris*. A member of the International Pharmaceutical Federation he has published 105 papers. His colleague M. Antoinette Bolle, Dr. ès Sc, also Swiss, has been first research assistant at the laboratory of galenical pharmacy of Geneva University since 1947. She qualified as a chemical engineer in 1944 after studying at the University, and obtained her doctorate in 1949. She is the author of a number of publications. Dr. Bolle attended the world assembly of girl-guides held at Oxford, England, recently, as the Swiss delegate.

CO-AUTHOR with Professor H. Berry of a paper on starch and alginic acid tablet disintegrating agents, MR. CYRIL RIDDOUT, Ph.C., is a lecturer in pharmacology in the School of Pharmacy, University of London. Apprenticed with Harsant

at Epsom, Surrey, he gained his Ph.C. Diploma in 1948, after studying at the College of the Pharmaceutical Society. He remained at the college (later under the administration of London University) as a demonstrator and was subsequently promoted lecturer.

Author of a paper on the chromatography of senna, Mr. GEORGE H. MAC-

MORRAN, Ph.D., Ph.C., D.B.A., is assistant resident secretary of the Scottish Department of the Pharmaceutical Society. Educated at Allan Glen's School and the Royal Technical College, Glasgow, and apprenticed with the late Mr. P. M. Duff, Glasgow, he qualified as a pharmaceutical chemist in

1932, obtained his Diploma in Biochemical Analysis in 1939. He gained the Doctor of Philosophy degree (Edinburgh University) in 1949 for a thesis entitled "An Examination of the Active Constituents of Senna Leaves and Pods." After serving for a short period as assistant and branch manager of the late Mr. Anthony McMillan, Glasgow, Dr. MacMorran joined the staff of the pharmacy department, Dundee Technical College, in 1933, as assistant lecturer. In 1938 he was appointed assistant laboratory manager to Duncan, Flockhart & Co., Ltd., Edinburgh, later being promoted laboratory manager. He took his present appointment in 1948. Dr. MacMorran served on the Society's Board of Examiners for Scotland, 1944-48, and has contributed several papers to evening scientific meetings of the Society in Edinburgh.

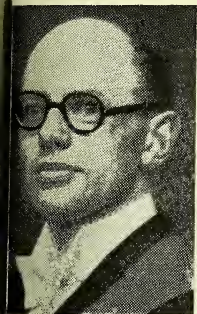
Mr. A. D. POWELL, chairman of the British Pharmaceutical Conference, 1950, retired in 1949 after serving for eighteen years as chief analyst to Boots Pure Drug Co., Ltd.—a company which he joined as junior in the analytical laboratory in 1903. A native of Nottingham, Mr. Powell was educated at the Nottingham People's College and University College. From 1909-12, he left the company's laboratory to gain experience in the company's retail branches, but after passing the "minor" in 1912, returned to his

previous laboratory. In 1919, he was given charge of the company's pharmaceutical development laboratory, and in 1924 was appointed to the main analytical laboratory as deputy chief analyst. In 1931 he succeeded the late Mr. H. Droop Richmond as chief analyst. Mr. Powell served on a number of sub-committees connected with the revision of the British Pharmacopœias 1932 and 1948, and on the British Pharmaceutical Codex Revision Committee responsible for the British Pharmaceutical Codex 1949. He is a member of the existing Committee and chairman of the sub-committee handling formulary standards. Since 1935, for various periods, he has been one of the Pharmaceutical Society's examiners in pharmaceutical chemistry. In 1939, he received the Pharmaceutical Society's Harrison Memorial medal and gave the memorial lecture in 1940. Mr. Powell became an Associate of the Institute of Chemistry in 1929 and a fellow in 1938. He was chairman of the Nottingham Section of the Society of Chemical Industry for the two years 1942-43, and is president of the Beeston Rotary Club.

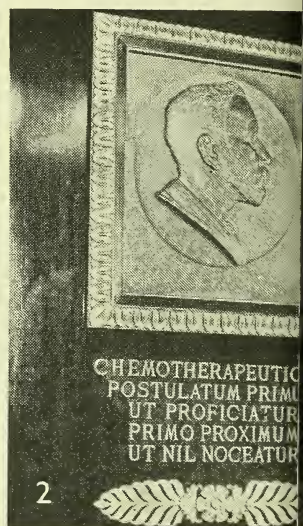
MR. E. A. HAUGAS, Mag. Chem. Techn. (Tartu) was born in Estonia in 1901. After

completing a grammar school education in 1920, he continued study at University Tartu (Estonia), Department for Technical Chemistry, graduating as Mag. Chem. Techn. in 1927. He was then employed by the Estonian Ministry of Agriculture as a chemist, and for six years was the chief of the

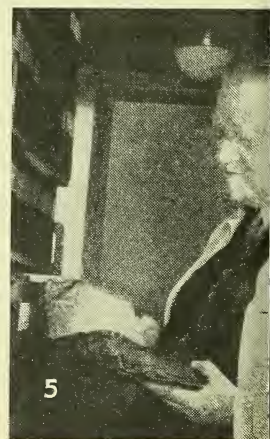
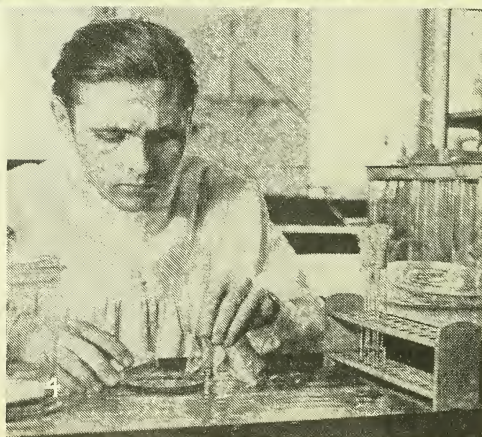
chemical laboratory of the control-station for exported milk products. He left Estonia in 1944, and arrived in England in July 1947. His partner in the authorship of a paper on the estimation of theosemicarbarzones, Mr. B. W. MITCHELL, B.A. (Cantab), B.Sc., A.R.I.C. is chief analyst to Herts Pharmaceuticals, Ltd., Welwyn Garden City, at the age of twenty-four. After graduating at Cambridge University (Gonville and Caius College) he joined the company in 1946 as a research chemist. In 1948 he was promoted senior, and in 1949, chief analyst.



Birthplace SALVARS



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as a science . .





Frankfurt-am-Main, Germany, the man who established

In 1899 the German State placed at the disposal of Paul Ehrlich an institute at Frankfurt at which, ten years later, he developed Salvarsan and which, still later, given his name. Today, the Institute is a place of research into new remedies and a supervisory and control centre for vaccines and sera manufactured in other German institutes. During and after the war, work at the Institute almost stopped through lack of funds.

Every day at the Institute are delivered samples of solutions for test from other institutes in the country.

In the "memorial room" a bust of the founder bears his motto: "The prime task of chemotherapy is to heal without harming."

The main laboratory of the Institute. In the laboratory and at the same bench Ehrlich carried out the experiments that led to his discovery of Salvarsan.

A hamster is infected with pneumonia bacilli. The library suffered great damage during the war. 3,000 volumes were destroyed. Some that were saved bear signs of fire.

Serial tests of a chemical compound on tubercle bacilli help to establish its influence on their growth.





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other Chemists' Societies in the Empire.

L. CLIV SEPTEMBER 9, 1950 No. 3681

A Kind Word for the Blunderbuss?

times when the specific is so much the
order of the day, it is refreshing to find
independent physicians confessing to a "fav-
ourite" prescription. A recent issue of
the "Practitioner" has provided such a
professional. Dr. H. Barber, Derby, ex-
plains that often a prescription will relieve
the symptoms while Nature cures, an
attitude Lord Horder impliedly endorses
when he points out that the duty of a
doctor is to cure his patient "safely and
quickly."

Some of the favourites are given, and
the whole their outstanding character-
istic is their simplicity. Hospital formu-
laries have provided quite a few, includ-
ing Gee's linctus and Brompton lozenges.
Lord Horder continues to use haust. gent.
rheo alk., which he first met at St.
Bartholomew's Hospital, London, in 1900.
The formula, it is insisted, must be the
original, made with recent infusion of
subarb. and not with the tincture which
"unscrupulous" chemists sometimes substi-
tute for it.)

A development in therapeutics—the use
of hormones and vitamins—have tended to
bring back the "blunderbuss" prescrip-
tion. What the prescription contains,
however, may be less than the effect of
the written directions upon the patient.
Lord Horder deprecates the "obsession"
with the "t.d.s." direction, and recom-
mends an eight-hourly round-the-clock
dosage. Dr. Barber suggests that individu-
ally written directions mean more to the

patient than the name of a standardised
formulary preparation on the prescription.
Let none feel, however, he adds, that it is
unscientific to base prescriptions on the
National Formulary. It is convenient, and
frees the mind for more important thought.
In fine, what is and what is not good
medicine must be decided not solely on
the ingredients of a medicine, but on the
total effect of many factors upon the
patient. On that basis it may be confi-
dently predicted that physicians will con-
tinue to have their favourite prescriptions

Volunteers in Pharmacology

A NOTABLE development in medical re-
search during recent years is the increasing
use of volunteers as experimental subjects.
This has been brought about largely be-
cause of the need for specific information
about the human body's reactions where
it is particularly difficult to infer from
animal observations, or where, as with the
common cold, there is no available experi-
mental animal. Recently, however, a
large-scale series of experiments have been
made under the direction of a pharma-
cologist (see p. 321) (who is also a distin-
guished pharmacist) and colleagues, primar-
ily for giving intending prescribers some
first-hand knowledge of drug action. The
results of the second objective—pharma-
cological research—throw valuable new
light on the action of a number of drugs
in common use. The experiments em-
phasise, for example, the need in choosing
an analgesic of considering its effect in
speeding the onset of exhaustion. That
factor might prove particularly important
for example in the quest for the ideal
analgesic for use in child-birth. The de-
gree by which one person may react dif-
ferently from another when given a drug
in the same dose has been well illustrated.
Not the least important finding is the
anomalous behaviour of amidone in a 10
mgm. dose in its effect on the onset of
"exhaustion." It is noteworthy that de-
spite the pain (particularly in the very
necessary control subjects), nausea and
other effects noted (though some were ap-
parently pleasant) many of the students
have expressed eagerness to act as sub-
jects again in further research.



British Pharmaceutical Conference, Glasgow, 1950

CHAIRMAN'S ADDRESS FIFTY YEARS OF PHARMACEUTICAL PROGRESS

IN choosing the subject of my address at this eighty-seventh Conference I have been influenced by the thought that 1950 marks the completion of a half-century of progress in the sciences of chemistry, physics and medicine, and in the fields of social welfare and legislation, which has without doubt affected pharmacy to an extent greater than had been experienced in any like period in the history of our profession. My other reason was personal, for the period I have chosen for review (which may be dated by the British Pharmacopœias of 1898 and 1948) was in its earliest years when I first took up a test-tube in the pursuit of chemistry in its application to pharmaceutical analysis.

A new concept of pure science, a new line of research in medical research, or a new application of scientific principles to engineering, may at the time of their birth seem far removed from pharmacy. They may, nevertheless, singly or in combination, prove to have a considerable influence on the production or nature of drugs. For example, in the most recent pharmacopœia, one of the new preparations is injection of aneurine hydrochloride. An ampoule of this preparation embodies a characteristic story of the combination of creative ideas, patient research, scientific knowledge and technical skill resulting in a valuable addition to the list of medicaments. Its history begins with Sir Gowland Hopkins' inspired forecast of the existence of accessory food factors. Research in human deficiency diseases confirmed the idea by the discovery of the presence of a curative substance in rice polishings and later by the isolation from that source of an impure active substance effective against beri-

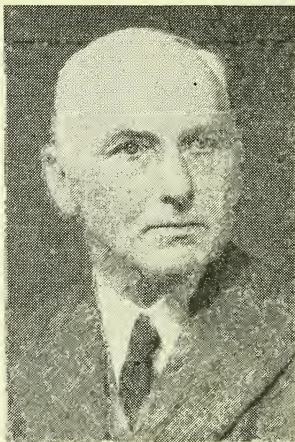
beri. Organic chemical science solved the constitution of the vitamin and elaborated its synthesis, and the technical chemist was then able to produce the drug. Solutions were found unstable unless sufficiently acid, and it became necessary to control the acidity between limits ensuring stability and tolerable by the patient. It was equally necessary to control the dosage of drugs in the ampoule. Progress in physical chemistry supplied the necessary knowledge for those controls. A modern conception of acidity had resulted in the evolution of electrometric instruments that could measure the hydrogen potential with great accuracy. For dosage control, physical methods were available, in this example by the newly developed methods of fluorimetry. Finally, the skill of the glass technologist called into play in the vision of the container,

glass of which had to withstand long contact with the solution of the drug without yielding alkali which would upset stability.

Developments in Synthetic Compounds

Such interplay of new conceptions and discoveries in the various sciences has been responsible for the evolution of new classes of compounds, remarkable in general for specific action and great potency. In addition, developments in organic chemistry have resulted in an enormous output of synthetic compounds, many of which have been shown by pharmacological testing to be capable of use as curative agents in place of naturally occurring drugs.

A comparison of the official drug preparations of the pharmacopœias of 1898 and 1948 enables one to appreciate



Mr. A. D. Powell, M.P.S., F.R.I.C.
Chairman of the Conference.

methods of treatment have changed from the alleviative and palliative treatment of symptoms to the direct attack on the casual agent responsible for the condition. In the earlier pharmacopœia drugs were mainly natural products of vegetable or mineral origin and there were only a few or so of organic compounds prepared by synthetic means. Substances of mineral origin, with the exception of those included only for their physical virtues in compounding (such as fats and waxes) counted for a still smaller number. Relics of former medical methods of treatment existed in the presence of musk and opium. Galenical preparations were, on the whole, similar to those in common use today, though in general, they were not required to comply with any standard. Many plaster-masses, now entirely eliminated from the pharmacopœia, and an extensive list of pill masses which, with a few exceptions, have also lost their official status were also included. Compressed tablets were absent (the only official tablet being trinitrin tablet in chocolate base) and there were only four hypodermic injections. By contrast, the present pharmacopœia contains a host of drugs and preparations indicative of the new methods of treatment. The presence of twenty-five injections is significant evidence of the changed trends.

Medical Developments

During the first twenty of thirty years of the century drugs were usually administered for the purpose of alleviating the patient's condition. The prevailing attitude was summed up by Sir Henry Dale in a recent reminiscence. He said, "One of the clear impressions left by my student days in hospital, at the beginning of the present century, is that of surprise and disappointment at the lack of conviction, and even of interest, which our teachers showed in medical treatment, in contrast to the care and enthusiasm which they devoted to diagnosis. . . . Treatment would often be prescribed with no better hope than to make the patient easier by alleviation of his symptoms, leaving Nature to deal, if possible, with the cause of the trouble." It is not surprising that subsequently the ideas and energies of organic chemists were directed principally towards the evolution of new compounds which, by reason of their molecular structure in relation to the known constitution of naturally occurring active principles of vegetable

drugs, might be expected to exert similar activity. A new branch of science, that of practical pharmacology, was called into service as a necessary complement to chemistry, in order that the trial of the thousands of derivatives so prepared might reveal which had the desired action to the best degree, and whether or not such action was accompanied by toxic or other undesirable activity.

Structure and Specific Activity

Although the main goal of this research was the discovery of new drugs exhibiting similar action to naturally occurring compounds of proved activity, and generally to improve upon Nature, the knowledge which accumulated of the effects of certain groupings in the molecular structure was of great value when, at a later date, chemists turned their attention to the synthesis of drugs of specific activity against particular classes of organisms. This period in the evolution of pharmaceutical chemistry has been productive of many notable achievements, some arising from the elucidation of the constitution of complex natural substances, others from the successful building up by synthesis of the counterpart of the natural drug or of new series of derivatives which have proved to have inherent medicinal virtues. Aspirin, for example, represents an outstanding example of a purely synthetic substance which by reason of its effectiveness has become almost a household word. It did not become an official drug until 1914.

The 1914-18 war had profound influences in accelerating progress in all branches of chemical and medical science. One of its permanent effects was the establishment on a firm basis the fine chemical industry in Britain and the United States of America. Another was the extraordinary growth of the application of preventive treatment in medicine arising from the necessity of maintaining millions of armed men in a state of fighting fitness in spite of wounds and of living under conditions conducive to the rapid spread of disease. The end of the war also left millions of human beings in the blockaded countries in a state of serious ill-health as a result of continued malnutrition, and the study of their condition pointed the way to a fuller understanding of nutritional needs and to the essential importance of the vitamins in the treatment of deficiency diseases. The stage was now set for the great advance in chemotherapy which was to

follow, and which has run parallel with progress in synthetic organic chemistry.

Chemotherapy

The German chemist, Ehrlich, following on the discovery that malaria, sleeping sickness and certain other tropical diseases were due to parasites transmissible by insects, began a search for chemical agents that would have a toxic action against the parasites without unduly affecting the host; to that new conception he gave the title chemotherapy. Ehrlich's ideal chemotherapeutic agent was defined as a substance that would possess a maximum affinity for the parasite and a minimal affinity for the organs of the affected subject. He produced suramin, which found its main use as a trypanocide, and his successors continued the search for antimalarial drugs to a successful conclusion when they produced Plasmoquine (pamaquin) and Atebrin (mepacrine). The later discovery of Paludrine (proguanil) is a purely British contribution in that field of research. Ehrlich's later discovery of Salvarsan established chemotherapy as a new factor in medical treatment. Until 1935 the applications of chemotherapy were confined to the treatment of diseases of protozoal origin. In that year Domagk announced the antibacterial properties of Prontosil, a new drug obtained by the condensation of *m*-phenylene diamine with sulphanilamide. The discovery opened the field of chemotherapy to include the more familiar diseases of Western civilisation, many of which are due to bacterial infection. When it became recognised that the activity of Prontosil was due to the sulphonamide group in its molecule and that sulphanilamide was in itself an active antibacterial agent, development in the field was rapid.

Another group of anti-parasitic agents, the amidines, has been the object of much research during the past fifteen years. The first compound of the class, Synthalin, was introduced into medicine for the oral treatment of diabetes, following observations that a simpler substance, guanidine, caused a fall in the blood sugar when administered to healthy animals. That led to an investigation of its possible value against the parasitic trypanosomes by interference with their metabolism.

The most recent chapter in the review of chemotherapeutic development is still in process of being written—that of the antibiotics. Once again the urgent necessities of a great war gave an impetus to

scientific advancement, on this occasion culminating in the isolation of penicillin and its commercial manufacture in huge quantities within a remarkably short time. Discoveries of other antibiotic drugs have followed, and more will probably come as a result of the intensive research which the opening of this new field has engendered, with incalculable possibilities in progress of medical treatment.

Quality Control

The three revisions of the British Pharmacopœia which have appeared during the past fifty years have each marked a stage in the progressive control of quality of official drugs and preparations. Progress along similar lines has brought the non-official medicaments into a like position. The British Pharmaceutical Codex has, in the course of successive revisions, become complementary to the pharmacopœia in control of quality of the materia medica today. Its production represents a part of pharmaceutical progress which our profession may regard with pride as one of its contributions to the general advancement of pharmaceutical knowledge, since it has been fostered by the Pharmaceutical Society.

The maintenance of present-day standards has imposed a considerable responsibility on the pharmaceutical manufacturing industry. Routine quality now requires the provision of extensive laboratories with skilled staffs, whose function is to assay products of the manufacturing departments, to prove the absence of undesirable impurities which might have a toxic or deleterious action, and to ensure that injectable preparations are sterile. New methods and techniques have become necessary, and the analyst relies not only on chemical reactions but on spectrophotometry, fluorimetry, polarimetry and on electrometric techniques in order to cope with the problems of his profession.

Old beliefs in the value of individual drugs may die for lack of supporting evidence. Drugs may disappear from pharmacopœias as they become outmoded and their places taken by others of more certain action, but the well-established proved remedies remain as the principal media of medical treatment. There is no likelihood that the practice of pharmacy will undergo any revolutionary change in character as a result of the changes I have mentioned; on the contrary they may in some degree allow him to exercise his skill in new directions.

At the beginning of the century the practice of pharmacy was governed by the Pharmacy Act of 1868, with certain amendments, although some of the provisions of the original Act of 1852 were still in force. The chemist and druggist in those days was at liberty, if he so wished, to keep his premises open until late hours, and expected equally long hours of service from his assistants. He was not required to keep a special guard against those habit-forming compounds which have since been classified as Dangerous Drugs, though he had to be careful to whom he sold arsenic and a few other poisons. In order to qualify for his title, he had to undergo an apprenticeship and fit himself by study of the sciences related to pharmacy. The subsequent examination was a severe test of his practical skill but did not demand anything like the theoretical knowledge of the sciences—either pure or applied—that is required nowadays. The relationship between the individual qualified chemist and druggist and his chartered body was a loose one. He had the wider interests of his profession at heart he would apply for membership of the Pharmaceutical Society and might continue his studies and sit for the "Major" diploma. It is a tribute to pharmacists as a class and to the traditions and training of pharmacy at that time, that, in spite of that lack of professional control, pharmacy maintained a general standard deserving of the high respect which it received from the public which it served.

Dispensing for the Government

Beginning with the Poisons and Pharmacy Act of 1908, new legislation affecting all branches of pharmacy was to come with regularity. An outstanding landmark was the passing of the first National Health Insurance Act of 1911, which, with its successor of 1936 and the recent National Health Service Act, has considerably altered the relationship between the pharmacist and the community. The Shops Act of 1912 regulated hours of work and the duties of the pharmacist among others to his employees in that respect. The Venereal Diseases Act of 1917 prevented the recommendation and sale to the public of remedies for these diseases; later legislation extended the prohibition. The vice of drug addiction, which began to assume serious proportions after the 1914-18 war, was responsible for the control of a class of habit-forming drugs that came to be

known as Dangerous Drugs after the passing of the first Dangerous Drugs Act of 1920. The growth of chemotherapy introduced into pharmacy the class of potent drugs that came under the stringent control of the Therapeutic Substances Act of 1925. The Pharmacy and Poisons Act of 1933 directly affected the pharmacist and the practice of pharmacy. That act has replaced the former loose relationship that obtained between the individual and the chartered body by a constitution of pharmacy on the lines of the other closed professions. The esteem in which the pharmacist is held will, in the future, depend in a large degree on the maintenance of his present reputation. There is no finality in the advance of scientific knowledge. Research will continue to produce results—new drugs, improved preparation of galenicals, new methods of treatment, and new methods of analysis and control. The chief danger that confronts pharmacy is that of failure to make progress on parallel lines to advancements in these other branches of human endeavour.

Requirements of Education

Pharmaceutical education and training, while giving due emphasis to the importance of the main function of pharmacy, and providing some knowledge of those parts of chemistry and other sciences which lie on its borderland, should also be directed towards a widening of general knowledge and culture. This can be gained only by study of the history, development, and principles of those sciences. The pharmacist of the future will need that wider outlook if pharmacy is to hold its own. There remain fields in which chemists trained in the pharmaceutical applications of allied sciences can find ample scope for utilising their particular skill and knowledge. The Conference has, from its inception, provided the arena in which such matters may be discussed. Its continued value to the community will depend upon the zeal of the present and future generations of pharmacists, and of others engaged in pharmaceutical pursuits, to devote themselves to this branch of investigation and research. The proceedings of the science sessions of previous Conferences provide a long record of the endeavours of such men in the past, and represent a tradition that should be prized by their successors in the future. It is a tradition worthy of upholding and deserving of the best efforts the profession can make to maintain and strengthen.



SCIENCE SESSIONS

THE first three papers to be presented at the Science Sessions on September 5 were:—

Preparation of Compressed Tablets

3.—THE VALUE OF POTATO STARCH AND ALGINIC ACID AS DISINTEGRATING AGENTS
H. BERRY and C. W. RIDOUT

[ABSTRACT]

EXPERIMENTS undertaken to ascertain the effects of variation in the degree of compression of tablets on their disintegration time, with other factors, i.e., formulation, speed of compression and absence of coating constant; and to study the relative values of potato starch and alginic acid as disintegrating agents with the other factors, i.e., compression ratio, speed of compression and absence of coating constant; showed that 10 per cent. of alginic acid gave a more rapid disintegration than 10 per cent. of potato starch. In the manufacture of phenobarbitone tablets, 10 per cent. of alginic acid gave a much better disintegration time than 15 per cent. of potato starch. With barbitone tablets disintegration time was approximately the same. Alginic acid can be granulated with the medicaments in a tablet, hence eliminating the usual risk of separation of powder and granules during the transfer of the bulk material to the tablet machine, and whilst the material is in the hopper of the tablet machine. Other advantages of the use of alginic acid are that the tablets break up into material which is smaller than the original granule, and that the process of tableting is simplified. In tablets prepared of barbitone, digitalis and phenobarbitone, using alginic acid as a disintegrating agent, some increase in disintegration time was noticed after three months' storage, but all the tablets disintegrated within fifteen minutes. Thyroid tablets showed no increase in disintegration time after storage for three months when alginic acid was used, but showed a considerable increase in disintegration time when potato starch was used. It is suggested that the maximum disintegration time for all uncoated tablets which are in the British Pharmacopœia and which are to be swallowed whole, be reduced to 15 minutes.

Disintegration of Tablets

H. BURLINSON and C. PICKERING

[ABSTRACT]

SOME of the factors that influence the integration of a tablet are examined, and the possible effect of ageing upon the integration time of tablets after storage assessed. All experimental tablets contain starch as a disintegrant. Factors affecting the initial rate at which a tablet disintegrates are taken as being:—

- (1) Variety of starch used.
- (2) Amount of starch contained in the tablet.
- (3) Method of granulation.
- (4) Nature of the moistening agent.
- (5) Pressure used during tableting.

Experiments have been made to examine the influence which each of these factors may have upon disintegration. An experimental formula has been devised in which factors adversely affecting initial disintegration have been eliminated. Thirty batches of different tablets have been made using this formula and the effect of ageing upon the time of disintegration examined over a period of four years. Results of experiments show that there is no significant increase in the time of disintegration after prolonged periods of storage.

Sterilising Oils by Filtration

G. SYKES and A. ROYCE

[ABSTRACT]

THE sterilisation of oily injections of thermolabile drugs requires consideration in view of opinions expressed that sterile filtration is unsatisfactory with oils. The authors have sterilised by filtration deliberately contaminated with *Bacter prodigiosum*, hæmolytic streptococci, bacterial spores using Ford Sterimats candle filters, and have handled large-scale batches of oily injections with equal success over many years. The right grade of filter must be used. Grades suitable for sterilising aqueous solutions are also suitable for handling oily vehicles. Sterile filters have been caused to break down by "insulating" the pads with oil and then filtering an aqueous suspension of organisms. They proved satisfactory with oils containing only a small amount of water or if a previously wetted pad were used. The effect has not been demonstrated with candles of sufficiently fine pore-size.

Opening Session

For most of the 603 visitors (a post-war record total) to the eighty-seventh meeting of the British Pharmaceutical Conference the proceedings began with afternoon tea in the Kent Hall of the St. Andrews Halls on Monday afternoon. The official opening ceremony was at 4.15 p.m. in the Berkeley Hall, when Mr. A. A. Meldrum (president of the Pharmaceutical Society) introduced from the chair the Lord Provost of Glasgow (Mr. Victor D. Warren). Mr. Meldrum mentioned that the Conference had met in Glasgow on three previous occasions, the last of them twenty-five years ago. A member (Mr. Black), who had been present at the next meeting before that - in 1897 - was among those present in 1950. Mr. Meldrum asked the Lord Provost to accept honorary membership of the Conference for the period of the meeting.

THE LORD PROVOST, in officially welcoming the Conference to Glasgow, said that the City was grey and old, but warm and kindly. He and the magistrates and councillors who were his colleagues appreciated the choice of Glasgow as Conference centre. They had an important medical school in Glasgow, and the Conference had a close link with medicine.

MR. MELDRUM then called on the Conference chairman (Mr. A. D. Powell) to deliver his address (see p. 328). Mr. NORMAN EVERS proposed, and Professor Todd seconded, a vote of thanks to Mr. Powell. The chairman recorded apologies from Messrs. E. Saville Peck and R. R. Bennett, the local secretary (Mr. Andrew Officer) made several announcements, Mr. Meldrum formally handed over the chairmanship to Mr. Powell, and the session closed.

Civic Reception

At the City Chambers, Glasgow, on Monday evening, the Lord and Lady Provost gave a civic reception to the Conference delegates and to the members of Beta Sigma Phi, an American confraternity whose members chose Scotland for their annual overseas visit in 1950. The Lord Provost, who was supported on the platform by the American Consul-General, welcomed members of the Conference. He referred to the ancient origins of the Glasgow medical school, and pointed out that pharmacists with doctors were bringing about a revolution which would have far-reaching effects - a revolution in medical science.

Speeches were also made by Mr. A. D. Powell (Conference chairman), Mrs. Melita O'Hara (Beta Sigma Phi) and Mr. S. Hughan (chairman, Conference local committee).

A programme of vocal music was presented in the Council Hall between 9.30 and 11 p.m., and dancing took place in the banqueting hall. The dance programme included a demonstration of country dancing by members of the Scottish Country Dance Society. The proceedings ended at midnight.

LATE NEWS

Death of Scottish Manufacturer.- Mr. Donald Cumming Wilson, B.Sc., F.R.S.E., chairman of T. & H. Smith, Ltd., Edinburgh, died suddenly on September 4. Mr. Wilson was chairman of the Scottish Wholesale Druggists' Association and a member of the Council of the Association of British Pharmaceutical Industry.

Price Increases.- Makers have announced increases of 10s. per cwt. in the wholesale prices of TARTARIC ACID, CREAM OF TARTAR and ROCHELLE SALT.

TRADE REPORT

28 Essex Street, W.C.2., September 6

THE volume of inquiry for PHARMACEUTICAL and FINE CHEMICALS continues on a good scale, both from overseas and home buyers. In a number of instances, order books are full and delivery dates are being moved further ahead. The undertone of the market is firm, although prices are little changed on the week. A small increase has been announced in BARIUM SULPHATE (x-ray). It is reported that rates for BISMUTH SALTS are under consideration following a further rise in the cost of metal. Business in CRUDE DRUGS has declined slightly. Trade circles say that the amount of business in August was greater than had been seen in that month for many years. There is still no improvement in supplies of Cape ALOES and ERGOT, while it is extremely difficult to get forward offers of Costa Rican, Nicaraguan or Colombian IPECACUANHA. Canadian reports indicate that the SENEGA crop will be short and higher prices are indicated for shipment. The BALSAMS continue firm. Supplies of TOLU and COPAIBA are hard to find and there are no ship offers. Supplies of GUM ACACIA on the spot are short and dear. A good c.i.f. business is reported done in Chinese MENTHOL. In SPICES the most important development has been a further advance in prices of Zanzibar CLOVES. The markets generally for ESSENTIAL OILS continue firm. There are still no offers of BERGAMOT for shipment. Ceylon CITRONELLA has gained slightly. LEMONGRASS is dearer on the spot and to come forward.

U.S. Drug and Chemical Report

New York, September 6

IN markets for PHARMACEUTICAL and FINE CHEMICALS, the undertone has continued strong despite the scarcity of business passing. Price changes however have been few. It is reported that D.D.T. is dearer in some quarters and prices up to 39 cents. per lb. have been obtained in the spot market. Consumers of MENTHOL are reported to be resistant to high prices and sellers latterly have been noted down to \$15 per lb. CAMPHOR has been a strong market with the price at 46 cents. per lb. The supply position for BROMIDES and SALICYLATES has been difficult although prices are unchanged. Demand for THYMOL is increasing and prices have advanced from \$3.65 to \$4 per lb. Demand for CRUDE DRUGS has been moderate but inquiries have not been as numerous as in recent weeks. IPECACUANHA is quoted at \$5.25 - a gain of 50 cents. from previous levels. SENEGA prices were very firm following reports of a short crop in Canada. TRAGACANTH is showing new strength, and \$3.80 per lb. is now asked for No.1 ribbon. Dwindling supplies of AGAR have resulted in further gains in the price of this material. BELLADONNA LEAVES are dearer. ESSENTIAL OIL markets have been showing strength with supplies of nearly all oils very difficult. CORIANDER, CITRONELLA and BERGAMOT are particularly firm.

Pharmaceutical Chemicals

ATROPINE.- Current rates per oz. are: ALKALOID, 43s. 9d.; 4-oz. 43s. 3d.; 25-oz., 34s. 9d.; 25-oz., 34s. 3d.; METHYL BROMIDE and METHYL NITRATE, from 60s. to 65s. per oz. as to quantity.

BARIUM SULPHATE.- Dearer. 1 cwt. lots are now 1s. 4½d. per lb. Scheduled rates per lb. (containers in brackets) for quantities between 28 lb. and 1 cwt. are as follows: 1s. 10d. (1-lb.); 1 7½d. (7-lb.); 1s. 7d. (14-lb.); 1s. 6d. (28-lb.).

ROMIDES.- Makers' rates per lb. in the United Kingdom and Eire are follows:- POTASSIUM, B.P. (crystal) and SODIUM, B.P.: 5 cwt., 2½d.; 1 cwt., 2s. 3½d.; 28 lb., 2s. 10d.; 7 lb., 3s. 1½d. potassium salt in powder is 1½d. per lb. more than the foregoing prices. AMMONIUM, B.P.C., 1½d. per lb. more than the potassium and ium salts. Terms: Prices net, 1-cwt. cases or kegs charged; 1b. parcels, free; smaller quantities charged extra. Schedule ntities may be made of assorted salts down to 28 lb.

CAFFEINE.- Steady. Makers' home-trade prices for 1-cwt. lots are r lb.) as follows:- ALKALOID, B.P., 37s. 6d. and anhydrous 39s.; PRATE, B.P.C., 21s. 6d.; SODIUM BENZOATE, B.P., 23s. 6d. DIUM SALICYLATE, B.P.C., 24s. 6d. CAFFEINE and SODIUM IODIDE is s. per lb.

CITRATES.- Prices are as follows:- POTASSIUM, 5-cwt. lots, 2s. 10½d. r lb.; 1 cwt., 2s. 11½d.; scheduled prices for quantities of 1-lb. to 1 cwt. are (containers in brackets): 3s. 9½d. (1-lb.); 8d. (4-lb.); 3s. 7d. (7-lb.); 3s. 6½d. (14-lb.); 3s. 5½d. (3-lb.); IRON AND AMMONIUM CITRATE, B.P., 7d. per lb. more; SODIUM, P., 3d. less; powder, 1d. more.

QUININE.- Makers' rates (per oz.) to home-trade distributors are ren below: additional charges must be added for repacking, etc. ALKALOID, from 5s. to 5s. 6d.; ACETYSALICYLATE, 6s. 3d. to 9d.; BISULPHATE, 3s. 7d. to 4s. 1d.; DIHYDROBROMIDE and HYDROCHLORIDE, 4s. 1d. to 5s. 5d.; FORMATE, 5s. 9d. to 6s. 3d.; CYCEROPHOSPHATE, and PHOSPHATE, 5s. 5d. to 5s. 11d.; HYDROBROMIDE d HYDROCHLORIDE, 4s. 6d. to 5s.; SALICYLATE, 4s. 8d. to 5s. 2d.; PHATE, 4s. to 4s. 6d.; QUININE and UREA HYDROCHLORIDE is quoted om 4s. 10d. to 5s. 4d.

Crude Drugs

AGAR.- Kobe No. 1 is from 8s. 9d. to 9s., spot, duty paid.

ALOES.- No offers of Cape on the spot; for shipment, 140s. per ., nominal, c.i.f.

BISMUTH.- Dearer. As from September 1 metal is 15s. per lb.

BALSAMS.- Firm. CANADA is quoted at 18s. 6d. per lb. Pará PAIBA, spot, nominal; forward, nominal. San Salvador PERU, . 6d. per lb., spot, duty paid. TOLU on the spot is valued at s. per lb.; no shipment offers.

BELLADONNA.- Steady. Imported root is offered at around 4s. 9d. r lb. as to test. leaves (or herb), from 4s. to 4s. 6d. per lb., pt, duty paid.

CAMPHOR.- Refined powder (B.P.) on the spot is quoted at 4s. 3d. r lb., duty paid (in bond, 3s. 9d.). ¼-oz. tablets are from . 3d. to 5s. 6d., duty paid; and 2½-lb. slabs, 4s. 9d. per lb., ty paid.

CASCARA SAGRADA.- Firm. Spot quotations for 1950 peel are at 5s. per cwt., duty paid (260s. in bond); c.i.f. indications are om 230s. to 240s. per cwt.

LOVES.- Firm. Zanzibar on spot, 2s. 4d. per lb., sellers; tember-October shipment, 1s. 10d., c.i.f.

COCHINEAL.- Steady. Supplies of black are offered at 6s., and of iver grey at 5s. 9d. per lb., spot London.

GINGER.- Firm. African on spot is 330s. per cwt.; August-September shipment, 320s., c.i.f. Jamaica, spot, No. 3., 470s. per cwt., nominal.

IPEACACUANHA.- A firm market. Nicaraguan, 38s. 6d. per lb., spot, nominal; for shipment, 38s., nominal, c.i.f. Colombian is offered at 35s. per lb., spot; for shipment, 33s. 6d., c.i.f. No Costa Rican available. Matto Grosso on the spot is quoted at 41s. per lb.; for shipment, 40s., c.i.f. Minas for shipment, 37s. 6d. c.i.f., quoted.

MENTHOL.- Business done in Chinese on the spot at 99s. per lb., duty paid; for shipment, from Shanghai 93s. 6d. c.i.f., and from Hongkong, 95s., c.i.f., quoted. Brazil is quoted at 95s. per lb. in bond; for shipment, 107s. 6d., c.i.f., indicated.

QUILLAIA.- Natural bark on the spot is 150s. per cwt.; for shipment, 150s., c.i.f.

SEEDS.- Turkish ANISE 155s. per cwt., duty paid in London. CARAWAY Dutch is firm at 130s. per cwt., duty paid, in London. CELERY.- Indian is unchanged at 1s. 9½d. per lb., spot London. No French offering on spot, but sellers have quoted 230s. per cwt., duty paid August-September delivery. CORIANDER.- Market continues firm. New crop Morocco on spot is nominal at 140s. per cwt., duty paid; for August-September shipment, 145s. per cwt., quoted, c.i.f., London. Poor quality Indian on spot is quoted at 100s. per cwt. CUMIN.- From Cyprus on spot offered at 185s. per cwt., for shipment sellers now inviting bids of 177s. 6d. per cwt., c.i.f., London. Syrian on spot is quoted at 190s. per cwt., in bond. No Morocco offering on spot for shipment 215s. per cwt., c.i.f., quoted. DILL.- Indian continues firm on spot. Small quantities are available at 75s. per cwt. FENUGREEK.- Indian offered at 100s. per cwt., spot London. FENUGREEK.- Poor demand. Morocco is offered at 52s. per cwt., duty paid, spot London or Liverpool. Indian spot London is 57s. 6d. per cwt.

Essential and Expressed Oils

ALMOND.- Expressed sweet oil (B.P.) on the spot is from 5s. 6d. 6s. per lb. Bitter essential oil, s.a.p., on the spot, is from 24s. to 40s. per lb., as to grade.

ANISE.- Spot quotations are from 9s. 9d. to 10s. per lb., for shipment, 9s. 9d., c.i.f.

BERGAMOT.- Spot quotations are at 40s. per lb.; for shipment, nominal.

CITRONELLA.- Ceylon is quoted at 10s. 6d. per lb., spot; for shipment, 10s., c.i.f.

GERANIUM.- Bourbon on spot is from 155s. to 160s. per lb.; for shipment, 160s., c.i.f., indicated.

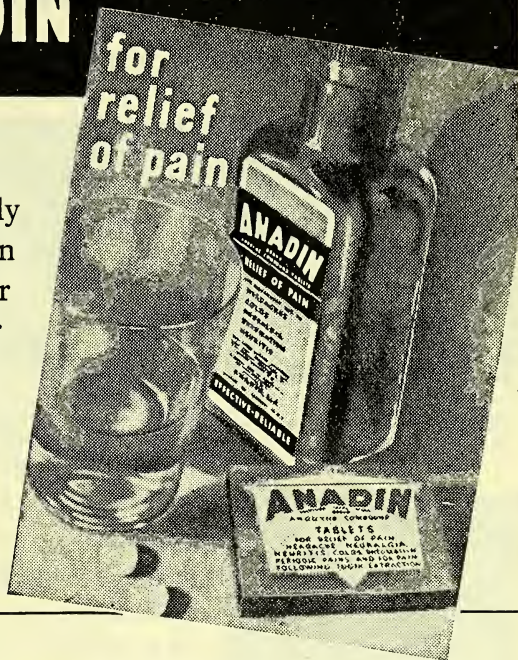
LEMONGRASS.- Firmer, 17s. 6d. per lb. is asked for spot supplies for shipment, 17s., c.i.f., quoted.

PALMAROSA.- Little available on the spot; quotations are from 5s. per lb.

PEPPERMINT.- Chinese on spot is from 35s. to 36s. per lb.; for September-October shipment from Shanghai, 31s. 6d., c.i.f., quoted.

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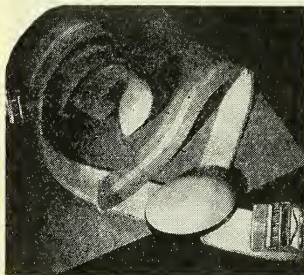
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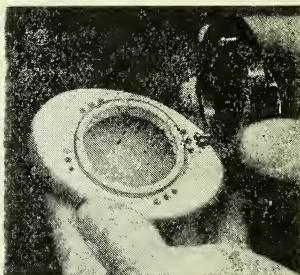
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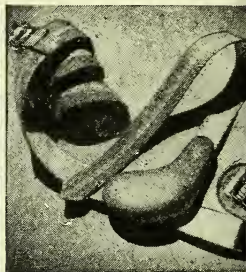
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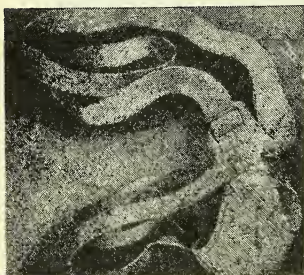
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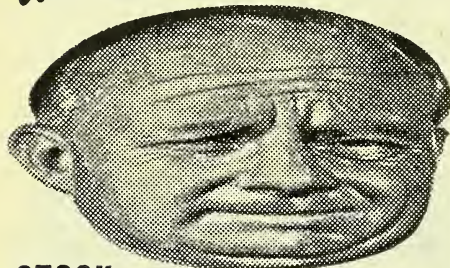


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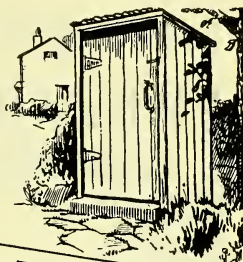
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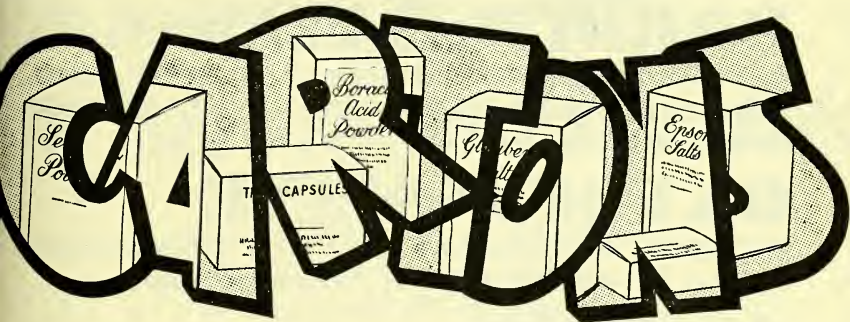
Ingram's, famous for over a hundred years for their Surgical Rubber Manufactures, take pleasure in announcing the return of one of their Agrippa Teat series, the Spiral Green Band Teats and Valves.

Nationally approved by nursing and clinical authorities and a best seller before the war, they are meticulously made from pure transparent rubber in four shapes, all of which are designed to ensure an even, natural flow. The special spiral band holds teats firmly on bottles and will not accidentally pull off. Each teat packed separately in a carton. Now being supported by press advertising which will be increasingly developed.

THIS TRADE MARK
GUARANTEES THE QUALITY

Ingram's
LONDON.

J. G. INGRAM & SON LTD., LONDON, E.9



Cartons by

THOMAS WAIDE & SONS LTD
KIRKSTALL HILL LEEDS

Askit

THE POWDER WITH A REPUTATION

**For over 30 years
Scotland's leading
Proprietary Medicine**

for the speedy relief of
Headaches, Neuralgia, Neuritis
and all Nerve Pains

Manufactured by
ASKIT LTD MANUFACTURING CHEMISTS
GLASGOW N

and stocked by
ALL LEADING WHOLESALE HOUSES

GALE'S NUTRITIOUS TONI

MORELIX

(Regd.)

ESPECIALLY SUITABLE FOR
CHILDREN
AND DURING CONVALESCENCE

*Contains Liquid Malt,
Vitamins A & D, Hypophosphites
and Virginian Prune.*

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BRAND

GALE, BAISS & CO. LTD
274/276, ILBERTON ROAD, S.E.

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ALLOBARBITONE, BARBITONE, SODIUM BARBITONE, BUTO-
BARBITONE, CYCLOBARBITONE, PHEMITONE, HEXOBAR-
BITONE, PHENOBARBITONE

OXYQUINOLINE

POTASSIUM OXYQUINOLINE SULPHATE, CHINIOFONUM,
DI-IODO HYDROXYQUINOLINE, (Powder and tablets)

ASPIRIN

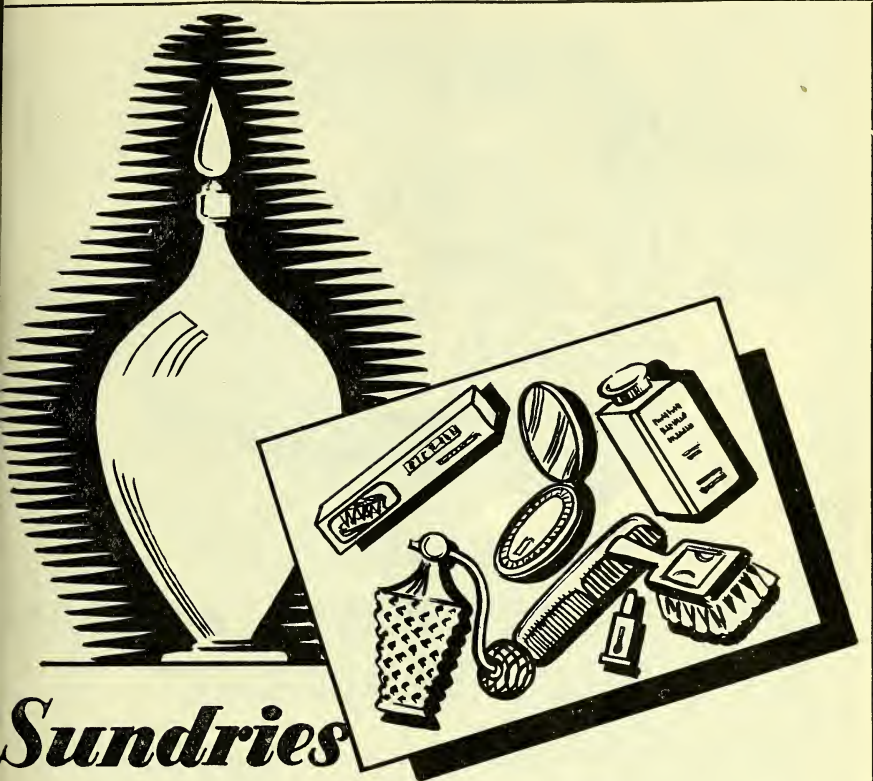
ASPIRIN TABLETS, CALCIUM ASPIRIN

Enquiries invited for prompt or contract deliveries by:

PIERSON, MORRELL & CO. LTD.
THE ORIGINAL BRITISH ASPIRIN MAKERS
BARNET, Herts.

Telegrams: Pierson Morrell Barnet

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& Service to Chemists

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Scottish Distributors of PLIM Interchangeable Hypodermic Syringes



FOUR REASONS WHY SCOTT'S BABY CEREAL TWIN-PACK WILL HAVE BIG SALES

1. Modern medical teaching advises mothers to use different cereals at alternate feeds during weaning and mixed feeding.
2. Scott's new Twin-Pack—the first packet ever to contain two separate baby cereals side by side—helps mothers to follow this advice. It is simple, convenient. Provides two cereals for the price of one.
3. A forceful advertising campaign will promote Scott's Twin-Pack. Over 156 million advertisements for the Twin-Pack will appear in the National Press this year.
4. Doctors already are recommending the Twin-Pack. Obviously a strongly growing demand will be encountered.
Stocks of Scott's Baby Cereal Twin-Pack are now available at most Wholesalers, packed 2 dozen 8 oz. packets to the case.

It's new!

SCOTT'S BABY CEREAL TWIN-PACK

A. & R. SCOTT LTD., COLINTON, EDINBURGH

Talking of TABLETS

Tablet Contracts may be booked for single or assorted items to be delivered over a period of 6 or 12 months.

Details on request.



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Grams: Horehound, Phone, London.

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Grams: Horehound, Manchester.

62 ORBISTON STREET, MOTHERWELL

Phone: MOTHERWELL 1413

Grams: Horehound, Motherwell.

Agents in Northern Ireland:

HAROLD MITCHELL & Co., Ltd., 321 Grosvenor Rd., BELFAST. Tel. 24356.

*The makers of
DDD products
present a profitable*
**NEW SUCCESS
FORMULA**

Cosmedin

SKIN BEAUTY LOTION

(Retail prices 2/- & 5/-)

is the loveliest and latest line produced by the Company that gave you the popular DDD Prescription



Cosmedin 3-in-1 action makes tremendous beauty news!

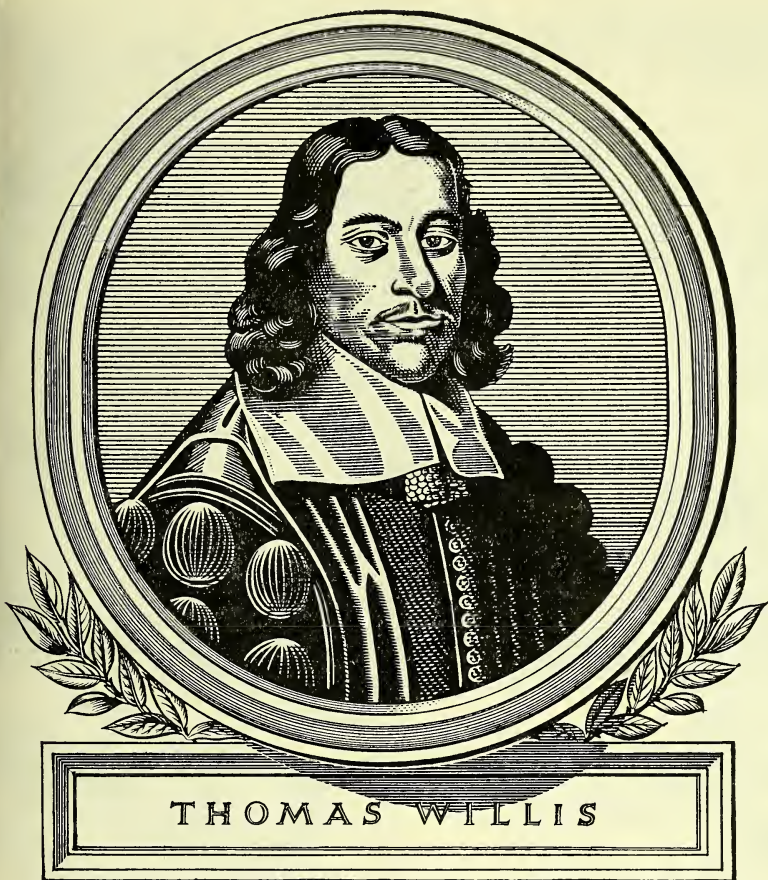
Here for the first time is a lotion that really does deep-cleanse the skin, that really does stimulate and refresh the skin, that really does make blemishes go away to stay away! The wonderful story of COSMEDIN will be unfolded in 16 national daily newspapers and magazines read by 22 million potential customers! The campaign commences in early September. Here is a 'natural' that is bound to bring you extra profitable business. NOW is the time to send your initial order for COSMEDIN to your wholesaler.

Small size **9/8** per dozen (P.T. 9/8 per dozen).

Large „ **24/-** „ „ (P.T. 24/- „ „).

Attractive show material sent on request.

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Foremost in diabetes — Diabetes mellitus was first distinguished from diabetes insipidus by Thomas Willis, the 17th century anatomist and physician. His name is indelibly recorded in the annals of diabetic research. The brand name 'Wellcome,' applied to insulins, is held in similarly high esteem by all who dispense or prescribe for the disease. Whichever type of insulin you are asked to supply, a 'Wellcome' brand preparation is available.

WELLCOME'
BRAND

**INSULIN (Unmodified or Soluble)
GLOBIN INSULIN (with Zinc)
PROTAMINE ZINC INSULIN**



BURROUGHS WELLCOME & CO. (The Wellcome Foundation Ltd.) LONDON



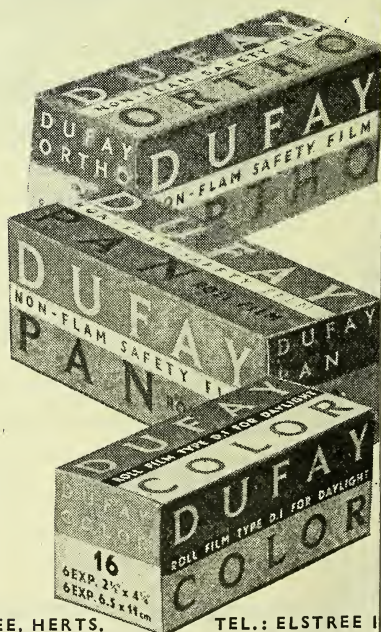
**ANTISEPTIC THROAT · GLYCERINE OF THYMOL
CATARRH · MENTHOL & EUCALYPTUS**

THOMAS KERFOOT & CO. LTD., VALE OF BARDSLEY, LANCASHIRE.
and Bardsley House, London, N.1.

3 best sellers

for COLOUR
and BLACK and WHITE

Link up with the extensive advertising
campaign with a prominent display of Dufay,
Ortho, Pan and Dufaycolor.



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SAFETY **FILM**

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Edinburgh Castle
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PILOCARPINE	SANTONIN	STRYCHNINE



Manufactured in Edinburgh by

T. & H. SMITH LTD

at Blandfield Chemical Works

this aspirin business



—and what's behind

Customers who go elsewhere "bargain-hunting" for aspirin easily develop new purchasing habits. Obviously this must be bad for "somebody's" business. It is important, therefore, that good pharmacies keep their habituated customers (and all-comers alike) firmly alive to the over-riding importance of *quality* in Aspirin.

Recommend the standard price Aspirin you know to be *best*. Bayer Aspirin is now to be advertised nationally. Keep the bottle, the display outer and the display material on the counter and in the window and remind the public that *quality matters most*.



BAYER

Stafford Allen's

Founded 1833

GROUND GUMS

•
**TRAGACANTH
KARAYA
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For well over a century we have been the leading millers of natural Gums, and we are an authority on the application of the various grades to many different trade requirements.



Why not approach us for samples to your specific requirements, and advice on all questions of

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EMULSIFICATION
SUSPENSION**

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TAS/AL 376

**CALCIUM GLUCONATE
CITRIC ACID
CREAM OF TARTAR
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ROCHELLE SALTS
TARTARIC ACID**

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**LITHIUM BENZOATE
LITHIUM CARBONATE
LITHIUM CHLORIDE
LITHIUM CITRATE
LITHIUM HYDROXIDE
LITHIUM SALICYLATE
LITHIUM SULPHATE**

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Kemball, Bishop & Co. Ltd.

MANUFACTURING CHEMISTS, ESTABLISHED 1870

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ENGLAND**

Telephone: ADVANCE 1234 (7 lines) Telegrams KEMBALL, LONDON, ENG,
CODES ABC 6th Bentleys Private

The Safe and Effective Treatment for Head Lice

Lorexane' Head Lotion contains gamma benzene hexachloride, a most powerful parasiticide which destroys head lice at one application. It is easy to use, non-irritant and has no harmful effect on the hair or scalp.

The pharmacist can recommend 'Lorexane' to the public with absolute confidence in its safety and efficiency.

Available in bottles of 50 c.c. in display outers of twelve, retailing 1/10d. per bottle (including purchase tax).

Ask for Supporting Display Material—

Display Stands
Counter Leaflets



'LOREXANE'
HEAD LOTION

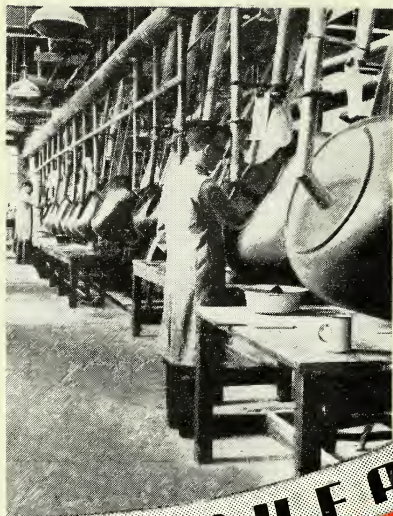
From your wholesaler or, in case of difficulty, apply to your nearest I.C.I. Sales Office—
London, Bristol, Birmingham, Manchester, Glasgow, Edinburgh, Belfast and Dublin.



IMPERIAL CHEMICAL (PHARMACEUTICALS) LIMITED

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Ph.83/1



*Scientific
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**PILLS and
TABLETS**

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SCOTIA CHEMICAL WORKS · COATBRIDGE · SCOTLAND
Export Enquiries to H. Jarvie & Co. Ltd., Wigmore House, 10 Duke St., London, W.1

ESTABLISHED ★ 1892

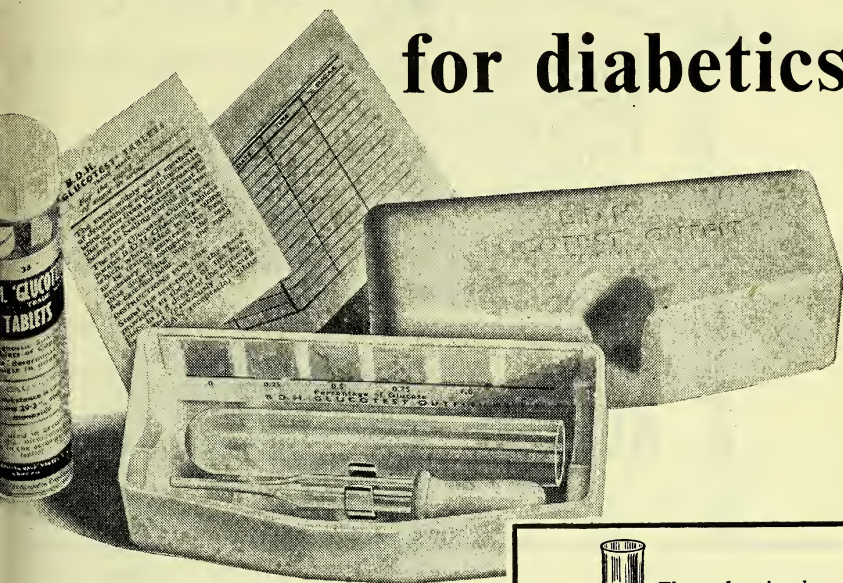
**PRESSED
MEDICINE TUMBLERS**

Supplied in 1-oz. and 2-oz.
sizes—with Graduations
moulded in the glass in Table-
spoons, Teaspoons, Fluid
Ounces and Drachms.

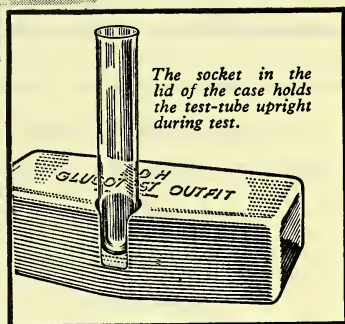
another **W** *product*



A new urine test outfit for diabetics



- * Convenient
- * No external heat
- * Compact
- * Attractive



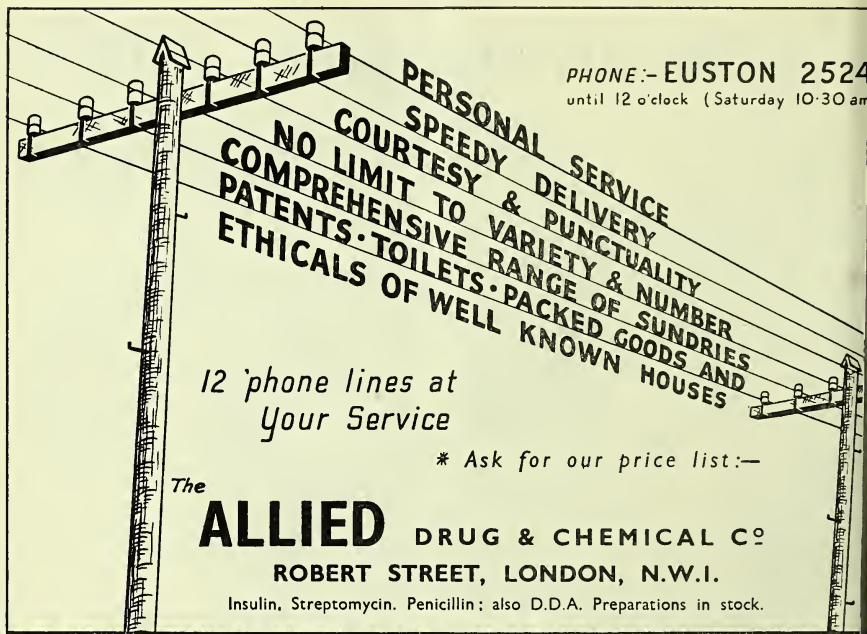
is new B.D.H. Glucotest Outfit in its neat cream plastic case provides all that diabetic needs to make quick and reliable urine-sugar tests and to keep precise records. Each outfit contains — B.D.H. 'Glucotest' Tablets, test tube, dropper, your chart and record sheet.

B.D.H. 'GLUCOTEST' OUTFIT

Complete outfit
Tubes of 36 B.D.H. Glucotest Tablets

Trade 7/- Retail 10/6
„ 2/4 „ 3/6

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PERSONAL SERVICE
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BEST SCURF REMOVING AND SCALP CLEANSING
SHAMPOO
NUCTA OIL**

THE SHAMPOO WITH THE SCALP PENETRATING ACTION



Can be recommended with
confidence

Nationally Advertised

IN 8 oz. BOTTLES SELLING
AT 3/10⁰

25/- PER DOZ., PLUS TAX.

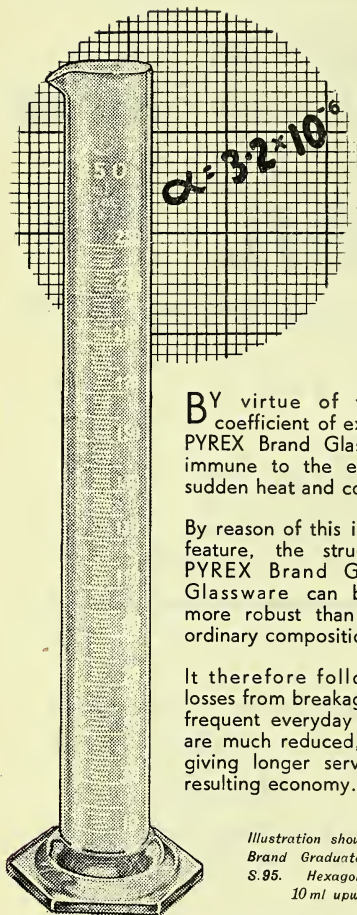
ALSO AVAILABLE IN 20. oz
SIZE SELLING AT 9/2⁰

60/- PER DOZ., PLUS TAX.

THIS ATTRACTIVE DISPLAY STAND CARRIES THE 8 oz. SIZE

Obtainable from your wholesaler or direct from the manufacturers

STEWART, GOODALL & DUNLOP LTD.
1A PRINCES STREET, EDINBURGH



BY virtue of the low coefficient of expansion, PYREX Brand Glassware is immune to the effects of sudden heat and cold.

By reason of this important feature, the structure of PYREX Brand Graduated Glassware can be made more robust than that of ordinary composition.

It therefore follows that losses from breakage due to frequent everyday handling are much reduced, thereby giving longer service, and resulting economy.

Illustration shows PYREX Brand Graduated Cylinder S.95. Hexagonal feet on 10 ml upwards.

PYREX Brand Graduated Glassware is supplied only through Laboratory Furnishers, but illustrated catalogue and two free copies of our Chemist's Notebook will be sent direct on application to us.

PYREX
Regd Trade Mark Brand
**GRADUATED
GLASSWARE**

Made by JAMES A. JOBLING & CO. LTD.
Wear Glass Works, SUNDERLAND. G78C



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Producers of:

CAFFEINE AND SALTS

CYCLOBARBITONE (ACID & CALCIUM SALT)

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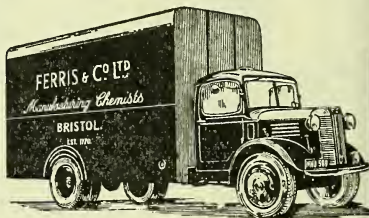
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PURE, SODIUM AND CALCIUM

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the SOLID favourite



in a smart *New Tin*

The same steady seller in a more attractive pack to brighten
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**Place orders NOW for these
quick selling winter lines . .**



*It pays you well
to stock and sell*

STEMCOL, MISTOL & NUJOL

*Also Cream of Nujol
and Cream of Nujol with Phenolphthalein*

STEMCO LTD., 128/132 ALBERT STREET, CAMDEN TOWN, N.W.1

Because these reliable family remedies always do the
they're meant to do—gently, safely and efficiently
they bring you the confidence and future cus-
of the families to whom you sell them.
Strong National advertising keeps
the demand for Stemcol, Mistol
and Nujol. Supporting dis-
material is available.



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AND DERIVATIVES

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Only)

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GALLIC ACID PYROGALLIC ACID

(RESUBLIMED, PURE CRYSTAL AND TECHNICAL)

AND DERIVATIVES

WHOLESALE AND EXPORT ONLY

J. L. ROSE, LIMITED, ABBEY ROAD, BARKING, ESSEX

Original Display Idea Increases Chemist's Sales

"I took a look round my shop one day. And I saw something I hadn't really noticed before. My counter and shelves were full of displays that weren't necessary! And it's probably the same in your shop, too. We chemists clutter up our shops with displays of day-to-day lines which our customers would ask for anyway — because they don't need a reminder.

Money making idea

That's how I got my idea. I realised that now, more than ever, the public is looking for *quality and value* — and I was



looking for extra *profit*. So I looked around for a line which my customers needed, but perhaps wouldn't ask for automatically. And I chose Ibcoll, the all purpose germicide and disinfectant. Why? Well, Ibcoll certainly has first-class quality — leading hospitals wouldn't use it otherwise; as for value, I know from personal experience that Ibcoll is so concentrated it goes much further than ordinary fluids, and it's so reasonably priced. It certainly brings me extra profit because it's a heavily advertised line and my customers ask for a bottle as soon as they see the prominent display on my counter."

★ ★ ★ ★

Why not help yourself to this regular *extra* income by giving Ibcoll display priority in *your* shop?



HERE IT IS! Ibcoll comes in these handy, attractive display cartons containing $\frac{1}{2}$ doz. 2/- economy size or 1 doz. 1/3d. size. For the little space they take up these cartons will yield you handsome, regular profits. If you have supply difficulties, write to Ibbetson, Barking, Essex.

TWO-WAY STRETCH

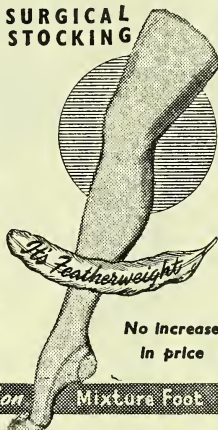
Lastonet

SURGICAL
STOCKINGwith NYLON
Mixture Foot

Lastonet, the renowned made-to-measure Surgical Stocking is now available with a Nylon Mixture Foot, giving greatly increased wear.

Measurement forms and full details from the makers:—

LASTONET PRODUCTS LTD.
Carn Brea, Redruth
Cornwall

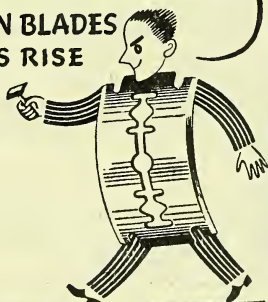


No Increase
in price

Now supplied with Nylon Mixture Foot

Lastonet for inconspicuous support

I'M IN THE POPULAR
SUNDAY NEWSPAPERS
AND WHEREVER I APPEAR
KLEEN BLADES
SALES RISE



W. R. SWANN & CO. LTD., SHEFFIELD, 6

C.V.B.

CARR'S VITAMIN B

PREPARED WHEAT EMBRYO

A RICH NATURAL SOURCE OF
VITAMINS B and E

TWO SIZES

1/9 or 3/-

Trade 16/- doz. or 27/- doz.
FREE NON-RETURNABLE CARTON

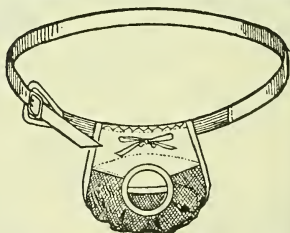
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CARLISLE

"Clifton"

Brand

SURGICAL APPLIANCES and SUNDRIES
ABDOMINAL BELTS and CORSETS
SUSPENSORY BANDAGES
JOCK STRAPS ELASTIC HOSIERY
TRUSSES CHEMISTS SUNDRIES



Appliances N.H.S. All types
Special terms to wholesaler

Write for price list

CHARLES WILLIAMS & Co.

(Proprietors: A. G. Price)

STONEY STREET • BEESTON

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- The world-famous 'Sucrets' are now available in a newly-designed tin, packed in a new and attractive Display Outer of 1 dozen tins.
- Containing Hexylresorcinol in a special Glucose and Sugar base 'Sucrets' will provide speedy throat relief—soothing sore throats in a matter of seconds!
- 'Sucrets' are standardised for their antiseptic activity by a rigid bacteriological test, detailed on every tin.
- 'Sucrets', retailing at 1/8d per tin (incl. P. Tax) are profitable to display and sell. Our new air-conditioned plant ensures that 'Sucrets' will keep in good condition for a prolonged period.

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All grades conform to the 1948 B.P. Standard

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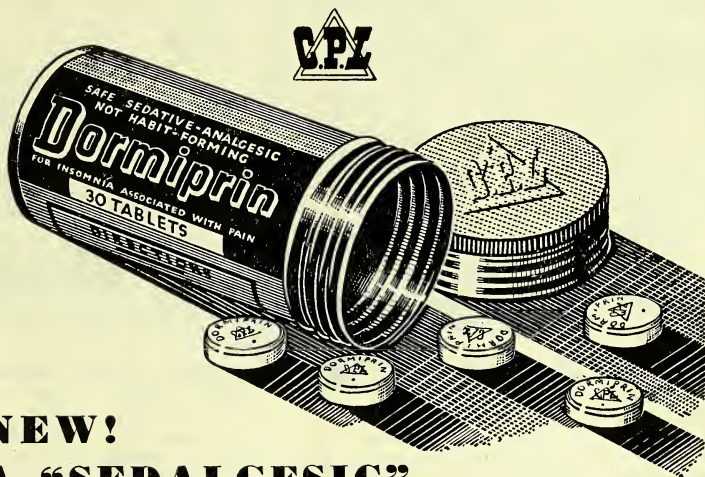
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THE ORIGINAL

WIDOW WELCH'S FEMALE PILLS

9d. BOX PROFIT by ordering
3/3½ size. Bonus given on
dozen (13). It pays to push them

C. & G. KEARSLEY
71 Dartmouth Rd., London,
EST. 1787



NEW! A "SEDALGESIC" DORMIPRIN

instant success with the medical profession

DORMIPRIN IS:

- **"SEDALGESIC"** — because it is simultaneously sedative and analgesic.
- **SAFE** — because it contains no barbiturates.
- **NON-IRRITANT** — because its aspirin content is neutralized.

FORMULA: Carbromal B.P.C. 150mg. Bromvaletone B.P.C. 50mg. Ac. Acetylsal. B.P. 250mg. Mag. Oxid. B.P. 200 mg.

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RICHMOND SURREY

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More Mothers choose
Griptight
FEEDTEATS
than any other

Awarded the
DIPLOMA
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ROYAL INSTITUTE
of
PUBLIC HEALTH
& HYGIENE
★

You can recommend the GRIP-TIGHT Feedteat with every confidence. More Mothers choose this brand because it gives entire satisfaction and is recommended by many leading Hospitals, Clinics and Welfare Departments. They are extra carefully pierced and are available in fifteen

different shapes. Made in best quality rubber Latex they have extra long life and retain shape for at least 500 feeds. Hygienically packed in transparent wrappers and attractively carded or boxed. Guaranteed three years' store life in any climate.

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STAINLESS STEELWARE
Specialists in modern equipment for manufacturers, i.e., Funnels, Buckets, Jugs, Mixing Containers, Measures, Percolators, Boggles, etc., etc. Suppliers of Stainless Steel utensils, at prices which enable the user to employ them in place of other metals as an economical proposition.
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4 Chemists out of 5 taken by surprise!

Fast-moving Silvikrin line leaves shelves empty

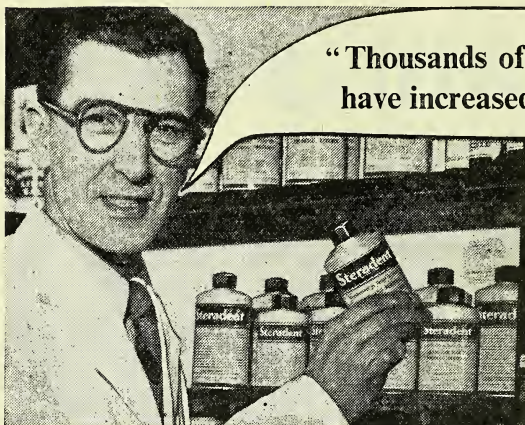
**New Advertising Campaign increases demand for
SILVIKRIN HAIR TONIC LOTION WITH OIL**

From the start, sales of Silvikrin Hair Tonic Lotion WITH OIL went up with a rush. Confident chemists cashed in, but the over-cautious were caught out. They ordered too late and too little... and to keep on saying 'Sorry, out of stock'. Don't be among these 'odd men out'. Order up extra stocks of Silvikrin Hair Tonic Lotion WITH OIL before the new 80-million-advertisement campaign gets into full swing in the next few weeks.



T/50-2

NOW is the time to replenish your stocks of
Silvikrin HAIR TONIC LOTION WITH OIL



"Thousands of new denture wearers
have increased my 'Steradent' sales"

"I don't need statistics to tell me that there are now many more denture wearers than ever before — my sales of STERADENT prove it, and they're still rising! It's easy to see why of course. People are taking a pride in their dentures — they look just like ordinary teeth and the wearer wants to keep them that way!"

Yes, the customers are certainly right when they buy STERADENT. It cleans and sterilises the new dentures with the same efficiency and safety as it does the old type. Stringent laboratory tests on various proprietary acrylic denture materials and five years' observation of a panel of users who wear acrylic resin dentures proved the suitability of STERADENT for cleaning plastic dentures.

As a further testimony we have the assurance of I.C.I., makers of 'Kallodent', that STERADENT is equally satisfactory for this brand of acrylic denture material when used as directed.

Remember to have a STERADENT display stand at your point of sale — it has real selling power.

Steradent

cleans and sterilises
artificial dentures

Two fine Instruments

and what they
have in common

The word Syringe derives from the Greek Syrxinx or Panpipes, the ancestor of the modern organ.



VIM HYPODERMIC SYRINGES

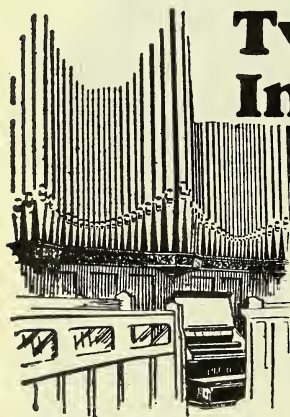
Made from tested glass of high thermal resistance; plunger and individually mated for smooth working without leakage. Rust and corrosion proof they are individually calibrated and can be sterilized by hot 160°C. Clear and permanent etched graduations. Plunger Retainer also prevents rolling. Sizes up to 20 ml. Repair service available.

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